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ABSTRACT

A study was conducted to evaluate the Boston Public Schools Career Exploration Project. The project model contained assumptions regarding need for a significant amount of funding, a teacher training program, phased implementation with a concentration of effort in pilot schools, substantial amounts of materials, creation of positions of leadership, creation of cross-disciplinary teams, and an evaluation component. The evaluation approach included 77 teacher interviews and 54 student interviews at the 12 pilot middle schools and 7 questionnaires completed by representatives of the 14 partial-implementation middle schools. Major findings and conclusions are (1) that the majority of teachers interviewed are using career education materials and have initiated career education activities in their classes, (2) that the program has increased communication among school team members but still needs to involve more school staff, parents, and representatives of the business community, and (3) that six of the pilot schools now have career information centers. Although the overall model for change was mainly supported by the findings, a refocusing of effort is needed in the next phase with regard to identification and use of students' career choices and interests; greater emphasis on curriculum adaptation and development by individual teachers; time for increasing staff involvement in program development and coordination; and coordination of Boston and State fiscal and program planning efforts. (Appended are individual profiles of the 12 pilot school programs including recommendations.) (JT)

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THE WAY IT'S WORKING:

AN EVALUATION OF THE BOSTON CAREER EXPLORATION PROJECT

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To the school staff and students that we spoke with during this evaluation--thank you. We hope that this report accurately reflects your concerns.

Robert I. Tobin
Project Director

January 1977

THE WAY IT'S WORKING

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INTRODUCTION

THE MODEL FOR CHANGE

According to the U. S. Office of Education,

> "Career education represents a response to a call for educational reform. This call has arisen from a variety of sources, each of which has voiced dissatisfaction with American education as it currently exists. Such sources include students, parents, the business-industry-labor community, out of school youth and adults, minorities, the disadvantaged and the general public. While their specific concerns vary, all seem to agree that American education is in need of major reform at all levels. Career education is properly viewed as one of several responses that could be given to this call."[1]

Career education involves changes in the roles of:

- Teachers who must integrate career education into their instructional activities.
- Counselors who must help students in the total career development process.
- Administrators who must emphasize career education as a priority goal.
- Parents who must become more involved with the schools to maximize the career development opportunities for their children.
- Business representatives who must serve as career development resource personnel for the schools.

The Boston Public Schools has begun to address this kind of educational reform with the Career Exploration Project which began in July of 1976. A model for change seems to be implicit in "The Detailed Design for Implementation of Career Exploration in the Middle Schools" which was the result of months of planning by staff of the Boston Public

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[1] Kenneth B. Hoyt, "An Introduction to Career Education." (Washington, D.C., Department of H.E.W., 1974), p. 1.

Schools, State Department of Education, parents and career education consultants.

The approach to initiating change as described in the "Detailed Design" was based on a model for change with the following assumptions:

> Assumption 1: A substantial amount of money is needed to bring about change. The State Board of Education made available almost $500,000 to the Boston Public Schools for initiation of Career Exploration Programs. This money was awarded on the basis of the "Detailed Design".
>
> Assumption 2: Training must be provided for teachers by outside specialists in order to implement career education. The necessary resources for staff development in career education were not available in the Boston Public Schools and an outside agency was called upon for support. In addition, due to Boston Teachers Union stipulations, all participants at the training were to be paid stipends. The Massachusetts Center for Occupational Education (MCOE) was awarded to contract for staff development. MCOE conducted planning and training sessions for almost 200 participants before and during implementation.
>
> Assumption 3: More money concentrated on several (12) schools will have greater impact than dividing resources equally among many (26) middle schools and will also provide an opportunity for assessment. The Career Exploration Project concentrated over 90% of the financial resources into 12 "pilot" schools, providing an opportunity for assessment prior to determining future directions for the remaining 14 middle schools, who shared the balance of the money for initial planning purposes.
>
> Assumption 4: New materials bring about change. Due to the Boston School Committee's interest in spending money in ways which would show immediate tangible benefits to students, the "Detailed Design" and the project emphasized the purchase of student and teacher materials. Over $170,000 of career education materials were purchased for use in the middle schools.
>
> Assumption 5: Leadership positions are needed to ensure program coordination. The Boston Public Schools appointed 12 career exploration coordinators who were to be released from other responsibilities 1/2 time to coordinate program efforts in the 12 pilot schools. A Special Assistant for Career Exploration was appointed to be responsible for overall program administration.

Assumption 6: Cross-disciplinary teams including parents are necessary to bring about involvement of the entire school staff and community involvement which are part of career education. A team of 12-13 individuals[2] from each pilot school participated in training and were responsible for selection of materials and implementation of career exploration programs for all students in these schools.

Assumption 7: An evaluation of this initial implementation effort could assist in future planning. The American Institute for Research was contracted to assess the program, identify strengths and weaknesses and recommend improvements for further implementation efforts.

This report is an interim report of implementation and evaluation of the extent to which the elements of this model seem valid.

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[2] Each pilot school was composed of the following individuals: 1 principal, 1 guidance counselor, 2 home economics teachers, 2 industrial arts teachers, 1 bilingual teacher, 2 subject area teachers, 2-3 parents, and 1 Core Evaluation Chairperson.

PROJECT DESCRIPTION

Historical Development

The initial thrust for the project began in 1975 when the Boston Public Schools and the State Department of Education submitted the "Unified Plan for Occupational and Vocational Education in the City of Boston" to the Federal Court. This plan made provision for educational improvements that would be of direct benefit to children enrolled in the Boston Public School system. One aspect of the Unified Plan required the full implementation of Career Exploration Programs in all Boston Middle Schools by September 1978. The Unified Plan specified that:

> "Exploratory Clusters offered in grades six through eight will be required for all students in all schools. There will be three groups of clusters: "Industry-Related", "Food-Home Services-Health-Related", and "Business-Distribution-Government-Related". Every student will receive instruction in each of these three groups of clusters."
> (p. 12, Unified Plan)

A Career Exploratory Task Force, hosted by the Bureau of Equal Educational Opportunity, State Department of Education (SDE), and composed of a broad spectrum of Boston Public School personnel, SDE staff, parents, and career education specialists, began meeting in February 1976 to identify career exploratory needs and to discuss possible strategies of implementation-models for change.

The American Institutes for Research (AIR) contributed to the development of this program from its beginning. In the spring of 1976, AIR conducted a comprehensive needs assessment of the middle schools which made a substantial contribution to the development of the "Detailed Design".

Project Activities and Goals

In June of 1976, the State Board of Education awarded the Boston

Public Schools almost $500,000 to begin implementation of career exploration in all Boston middle schools. This award, made on the basis of "The Detailed Design for Implementation of Career Exploration in the Middle Schools", constitutes the current plan for implementation of career exploration in the 26 middle schools in Boston. The Boston Career Exploration Project aimed to:

1. Fully implement Career Exploration Programs in 12 middle schools. (In these "pilot" schools, a team of 12-13 individuals at each school participated in preparation/training and were responsible for selection of materials and implementation of Career Exploration Programs for all students in these schools.)
2. Partially implement Career Exploration Programs in 14 middle schools with full implementation planned for September 1977. (In these "partial-implementation schools", one individual at each school participated in preparation/training, and was responsible for selection of materials and implementation of some aspect of career exploration, such as making career information materials available.

The approach for implementation in the schools relied heavily on modification of existing practices and courses in industrial arts, home economics, guidance, and general subject areas to reflect the broader focus of career exploration in the Industry-Related, Food-Home Services-Health-Related and Business-Distribution-Government-Related occupational clusters. The "Detailed Design", essentially a model for change, delineated guidelines for these programs. The guidelines include:

a. Career exploratory programs will offer a balance of conceptual and hands-on experience.

b. Self-exploration, self-discovery, and knowledge of career planning processes will form a significant portion of career exploratory activities.

c. The utilization of community resources, through guest speakers and field trips, will be an integral part of each program.

d. Career exploration and basic skills such as mathematics and reading will reinforce each other to make both more meaningful for students.

e. Career exploratory programs will be non-stereotyped by race, ethnic background or sex.

f. All components, activities, and classes will be fully co-educational and racially and ethnically mixed.

g. All students will be exposed to a full range of occupations for each of the three clusters.

h. Bilingual students will be offered the same educational opportunities as other youngsters. The budget allocation contained funds for the translation of materials and the involvement of bilingual, bicultural personnel.

Initiation of change began with the appointment of Mr. James L. Mahoney as Special Assistant for Career Exploration. Throughout the project, Mr. Mahoney served as Project Director and coordinated the efforts of the 26 middle schools, the training contractor (Massachusetts Center for Occupational Education) and the evaluation contractor (American Institutes for Research).

Once program participants were chosen, three one-day materials-review sessions were held for selected school staff and administrators of the Boston Public Schools and the State Department of Education.

The following 12 schools were selected as pilot schools:

District	School
1	Taft Edison
2	Curley
3	Irving Lewenberg
4	Thompson
5	Cleveland
6	McCormack
7	Timilty Michelangelo
8	Barnes
9	Mackey

At each of these pilot schools:

- A Career Exploration Team of 9-10 of the school staff and 2-3 parents was formed.
- The school staff members of the Career Exploration Team attended seven days of training during August.
- The parent members of the team attended four of the seven days of training in August.
- The entire team attended three follow-up Saturday workshops in the fall.
- $12,500 was spent for career education materials.
- A half-time career exploration coordinator was appointed to be responsible for coordination of implementation efforts in each school.

The following 14 schools were selected as partial-implementation schools:

Champlain
Cheverus
Dearborn
Edwards
Gavin
Holmes
King
Lewis
Mann
Mead
Rogers
Roosevelt
Shaw
Wilson

At each of these partial-implementation schools:

- One school representative attended four days of summer training and three follow-up Saturday workshops in the fall.
- The school principal attended three follow-up Saturday workshops in the fall.
- $1,000 was spent for career education materials.

At the summer training, the Massachusetts Center for Occupational Education established the following tasks for the pilot schools for the seven days of training and the first phase of implementation.

1. A position statement for their school's Career Exploration Program.
2. An action plan which establishes the plan for initial implementation.
3. A detailed plan for the establishment of a Career Information Center.
4. A list of materials to be acquired for their schools.
5. A schedule of team meetings for the period of September through December 1976.

A position statement from MCOE indicated that the orientation of training and therefore the emphasis for this phase was to develop an effective nucleus of model teachers in the school. Dissemination to other teachers during this phase would be informal, and would begin formally in January 1977. A facilitator from MCOE was assigned to each pilot school to assist in early implementation.

EVALUATION APPROACH

The purpose of this report is to provide information to the Boston Public Schools and the Massachusetts Bureau of Equal Education Opportunity about the implementation and impact of the Career Exploration Program to date that will assist in the planning of further program efforts. The report emphasizes presenting information about the perceptions and experiences of the program participants in relation to the Career Exploration Program as a whole and makes recommendations that will lead to a strengthening of the program over time.

In gathering information, the evaluation considered the following questions:

1. What career education experiences did administracors, teachers and students have this year? How were these experiences different from those of previous years?
2. Which program elements showed the greatest strengths?
3. What problems were encountered during implementation?
4. What needs can be identified that might be addressed in future implementation efforts?
5. Did the program follow the guidelines established by the Unified Plan and the "Detailed Design"?

To address these questions, the evaluation uitlized the following formative and summative strategies.

- Observation of all training sessions;
- Site visits and observations at each of the pilot schools;
- Interviews with staff members, students, and parents;
- A written questionnaire;
- Analysis of school planning efforts, including teachers' action plans;
- On-going feedback and involvement with the Career Exploration Coordinators group and the Career Exploration Advisory Council;
- Meetings with the pilot school career exploration teams;
- On-going feedback sessions with the training contractor, Boston Public Schools' Central Office personnel, and the Bureau of Equal Education Opportunity Project Monitor.

This evaluation was initiated when most school programs were at very early stages of implementation and teachers experimented with new ideas and materials.

Because programs were undergoing considerable and expected changes, our primary interest was in describing program implementation and impact based on teacher, administrator and student reports in order to highlight areas of strength that could be built upon and to identify problems that should be addressed as the program continues to evolve.

The information presented in this evaluation is based upon 77 interviews with teachers and 54 interviews with students at the pilot schools, and 7 questionnaires completed by representatives of the partial-implementation schools.

Based on findings growing out of these efforts, this report suggests characteristics across programs that have contributed to successful program implementation; identifies problems requiring continued system-wide attention and describes the individual school programs. The report draws heavily on the concerns, needs, and recommendations of participants and provides school-specific as well as system-wide recommendations.

SUMMARY OF FINDINGS AND CONCLUSIONS

Our study of the Career Exploration Project shows that certain changes did occur. Now, a refocussing of current efforts is necessary to bring about full implementation of career education in the Boston middle schools. Each change that has occurred and important continuing needs are discussed below.

1. The majority of teachers interviewed are using career education materials and have initiated career education activities in their classes. This was supported by discussions with students. Some teachers have developed community exploration projects, have had guest speakers, and have successfully infused career education principles into their classes.

The programs generally lack coordination and organization. There is a need for more planning time for teachers to coordinate their efforts with each other. Further, teachers still have questions about how to integrate career education concepts into their classes.

Teachers had five problems associated with materials and, for the most part, these problems have not yet been circumvented.

1. delay in receipt
2. inappropriate reading level
3. inadequate time to review
4. limited selection available at the training
5. lack of hardware.

Some teachers have successfully developed their own materials or have adapted the commercial materials for use with their classes. However, many schools have a large quantity of materials which are not being used and teachers will need assistance in adapting these materials for use with their classes.

There has been a lack of materials for bilingual and special needs teachers. Materials for students of these teachers should be reviewed and purchased. The efforts of this project should be coordinated with the Title VII bilingual career education program so that purchasing efforts and curriculum concentrations are not redundant.

2. The program has increased communication among school team members but still needs to involve more school staff, parents, and representatives of the business community.

In response to, "Has your interaction with the team members been affected by your involvement with the Career Education Program?" 37% of the respondents (N=77) indicated their interaction had been "somewhat" affected, 26% said it had been "greatly" affected. The time spent together at training sessions and team meetings had increased the interaction between members, and has given new prestige to industrial arts and home economics. However, the team composition is too heavily weighted in industrial arts and home economics, and should be expanded to include a larger cross-section of the school staff.

The program had a modest effect on communication between team members and the rest of the school staff, with 25% of the respondents saying their interaction had been "somewhat" affected. Thirty-seven percent said the program had had no effect on their interaction with the rest of the staff. Overall dissemination to other teachers is lacking and must be a focus of the next phase.

The program had only slight effect on interaction between team members and the community. Approximately two-thirds of the teachers (N=77) responding to the question, "Has your interaction with the community been affected by your involvement with the Career Exploration Program?" said the extent of their interaction was "very little" or "not at all". The question was primarily aimed to assess involvement with the business community, but may have been interpreted by respondents to include parental and community groups. With either interpretation, the response does show that the focus in this phase has been in the schools and there needs to be more substantial community involvement.

Parents are dissatisfied with the amount of involvement they have had in the school programs. They have not been approached by the school teams to volunteer their talents and this has resulted in frustration for many of them. In interviews with students, the family was most frequently mentioned as an influence in career decision-making. The schools need to make a greater effort to involve parents in the Career Exploration Program.

3. Six of the pilot schools now have Career Information Centers. The centers vary in size and scope. These six centers provide a place for storage and display of career education materials, and provide teachers and counselors with a place for meeting with small groups of students to talk about career possibilities, thus giving heightened visibility to the project. Future efforts should concentrate on establishing additional centers and increasing the frequency of use of the existing centers.

These changes, as well as problems and continuing needs are discussed in the next section.

FINDINGS

A. MATERIALS

Materials were a major resource of this program, and constituted the largest single item of the budget. Over $170,000 was spent on materials, with the pilot schools receiving $12,500 and the partial-implementation schools receiving $1,000 for this purpose. Materials refer to student and teacher classroom and resource materials, and does not include hardware or supplies. Midway through the project, this category of spending was expanded to allow the use of monies for field trips.

Teachers used the new materials they ordered and over 41% of those interviewed indicated that materials had contributed to a change in what they were doing in career education this year. Teachers welcomed the opportunity to purchase materials for their classes and were pleased to be able to make their own decisions about what to order.

While materials and access to them was a positive aspect of the program, over 74% of those who responded to whether materials represented a problem indicated problems existed. Five problems encountered regarding materials are discussed below.

1. Delays in Receipt of Materials

MCOE had a monumental task in coordinating the large-scale ordering of materials for this program. The short time between the summer training and the start of school made it difficult to have the materials on hand when school started. The United Parcel Service strike exacerbated the problem.

The majority of the materials ordered did not arrive at the schools until November. Even in December, most schools had not received all of the materials they had ordered.

> "We really need materials to come without delay in the future."
>
> --Industrial Arts Teacher

> "What materials? We have received about 20% of what we ordered."
>
> --Career Exploration Coordinator

It is doubtful that the Boston Public Schools could have handled ordering more efficiently than MCOE and, in fact, this option was not available since all money for materials had to be encumbered shortly after award of the grant. The ordering procedures of the Boston Public Schools required that all items be placed on bid which would have further delayed receipt. Proposals for future monies must be submitted well in advance to provide for the advance planning which is necessary for such a large-scale program.

Some teachers overcame the void caused by the delay in receipt of commercial materials by developing their own. However, due to the heavy emphasis of the program and the training on materials, many teachers became materials-dependent and felt as if they could not implement career education without materials.

Several studies have now shown that "school districts that were most successful in implementing a variety of student activities and had the highest level of teacher involvement were precisely those districts that were developing their own materials."[3] While it is true that teachers need materials to arrive on time, they should be encouraged to capitalize upon their own resources and develop their own materials. This will allow teachers to begin implementation without commercial materials, and will enable teachers to tailor activities to their own classes.

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[3] Dunn, J. A. et al. Instructional Systems Options and Guidelines for the Dissemination and Implementation of Career Education. Palo Alto, Calif., American Institutes for Research, 1974.

2. More Opportunity for Review of Materials

Participants would have preferred more opportunity to review the materials prior to making decisions. Participants felt pressure to make decisions based on limited information. They felt that there was too much "push" to order materials that eventually did not arrive on time.

> "I was impressed by the fancy packaging and made a lot of mistakes."
>
> --Mathematics Teacher

> "More information on the materials was needed at the training."
>
> --Physical Education Teacher

The majority of decisions were made in the summer but could have been deferred to the fall. Participants could have been provided with information on the materials to study at home prior to making decisions.

3. Limited Selection of Vendors

Only a few vendors exhibited their materials at the summer training conference when most purchasing decisions were made. Now that participants have been disappointed with their purchases, they would like to see a wider variety of materials:

> "We need new types of materials for students to use in independent or project work--like stories, for instance."
>
> --Home Economics Teacher

More planning time before the summer training would have enabled MCOE to arrange for a wider variety of vendors.

4. Inappropriateness of Reading Level

Although teachers reviewed and purchased the materials, there were many complaints about the inappropriateness of the reading level of the materials.

> "We must get materials which are on the students' level."
>
> --Home Economics Teacher

Comments such as this stem from the inadequate time given for review and the limited selection. Now teachers must be more discriminating in reviewing materials. When materials are available but inappropriate, teachers should adapt materials to the students' level.

5. Lack of Hardware

Some participants found that they could not do what they planned because of the inability to purchase certain hardware items:

> "How can I teach students about electricity? I have these beautiful kits, but I can't do the projects because I don't have the hardware to go with them."
>
> --Industrial Arts Teacher

Teachers would welcome the opportunity to purchase certain "hardware items" with the money allocated for materials.

The following list of materials were mentioned by participants as those most frequently used:

1. "Careers in Focus" (McGraw-Hill)
2. "King Comics"
3. Noble & Noble
4. Teacher-developed materials
5. "Careers and Me"
6. Science Research Associates materials
7. McKnight materials

Although some materials were used more widely than others, this is more a reflection of their availability than a testimonial to their quality or usefulness. At the summer training, a limited number of vendors made presentations while a large variety of materials were on display in a resource center. Since the time exposure and concentration was greater for those vendors making presentations, participants ordered primarily from those vendors making presentations. Even with all the funds invested in materials, participants listed teacher-developed materials often enough for it to be the fourth most frequently mentioned category.

Participants appreciated the opportunity to purchase materials and recognized that they have contributed to change. However, the materials have been a substantial problem in implementation and represent a continuing concern.

B. TRAINING

Training was also a major resource of this program with almost $200,000 spent to cover teacher stipends and training services. The training had three major accomplishments:

- Meeting and Planning Time--the training allowed team members the opportunity to meet together and plan.

  > "Everything we have this year is planned. We know where we're going."
  >
  > --Principal

- Heightened Awareness of Career Exploration.

  > "I never thought of career education as being for all of the teachers in the school."
  >
  > --Industrial Arts Teacher

- Opportunity to Review and Order Materials.

  > "The training was great because we had the opportunity to select and order materials."
  >
  > --English Teacher

Teachers' major concerns about the training relate to the program's heavy emphasis on materials. When the materials did not arrive on time, for the most part, teachers only waited for their arrival. The heavy emphasis on materials in the training made the teachers materials-dependent. Teachers would prefer to learn more about "how to do career education".

> "We needed to order less and learn more about how to use what we ordered."
>
> --Social Studies Teacher

> "(Too) much time was taken up at the training with ordering materials which were, in the final analysis, over the kids' heads."
>
> --Science Teacher

The respondents suggestions for improving the training again relate to materials. The most frequent suggestion was for a wider selection of materials, followed by an interest in developing their own materials. However, these comments come from participants in a training program which focussed on materials. There are also other needs, voiced by some, that relate to substantive issues which need to be addressed in the training:

- Integration of career education into subjects.

  "How do I integrate career education into grammar?"
  --English Teacher

- Involvement of other teachers.

  "How do we get more people in this school involved?"
  --Career Exploration Coordinator

These questions still persist and must be answered if the schools are going to provide career exploration for all students. Some participants voiced concern that the training may even have restrained implementation since some teachers felt that "it was against the rules" to involve non-team members. MCOE's emphasis on working primarily with team members made some people feel that the involvement of non-team members should wait.

> "I know I'm not supposed to be doing this, but I've lent the materials to other teachers and there is a whole cluster of teachers involved now."
> --Mathematics Teacher

Some teachers are ready to involve others and should be encouraged in this direction.

The training did provide a vehicle for initiation of change. Teams developed implementation plans together, ordered materials and gained an increased awareness of career education. The follow-up sessions, in particular, addressed specific needs of program participants. The short amount of time available to MCOE for planning the summer workshops as well as the "Detailed Design's" emphasis on materials may have interfered with what MCOE could have done had the timing and design been different. Certainly, full implementation at all schools was not an expected outcome of the training and the program, and certain training and technical assistance needs understandably still persist.

C. PROGRAM IMPLEMENTATION

Although each of the pilot schools received the same amount of money and had the same number of participants attend training, the individual school programs differ considerably in terms of activities and the numbers of teachers and students involved. The limited resources of this evaluation as well as the difficulties in assessing involvement made it impossible for us to examine every aspect of implementation. However, it is possible to report evidence of implementation for certain components and effect of the program on participants.

1. Career Information Center

One of the program objectives set by the training contractor, MCOE, was the development of a Career Information Center--a resource library of career materials for student and teacher use. The development of a Career Information Center is consistent with the guidelines of the Unified Plan which states that career exploratory programs "should have a strong career guidance emphasis." (Unified Plan, p. 9)

All 12 pilot schools have allocated space for the Career Information Center. However, this space varies from a small closet to a large classroom. The scope of activities in the centers also varies.

- 2 schools have allocated space for the Career Information Center, but have not yet established it for teacher or student use.
- 4 schools have Career Information Centers which are supplied with materials but are not yet functioning or are used primarily as storage.
- 6 schools have Career Information Centers which are being used by students and teachers.

Schools encountered several obstacles in establishing Career Information Centers. Some schools are severely overcrowded and, over the past few years, special needs, bilingual, and reading programs have used an increasing number of the available classrooms. The delay in receipt of materials for the Career Information Center not only affected its use, but may also have contributed to the relatively small space allocated.

The major determinant for whether a Career Information Center is functioning is the strength of leadership and commitment in the schools. When the career exploration coordinator and/or the principal view the center as a priority and are willing to overcome obstacles, the Career Information Centers have been established.

A description of a model Career Information Center at the Edison School is presented at the end of this chapter.

2. Career Exploration Coordinator

The "Detailed Design" specified a one-half time coordinator in each pilot school for coordination of the program. The career exploration coordinators received no stipend, but were released from teaching or other responsibilities for one-half time (12 teaching periods) in order to coordinate the program.

In fact, some career exploration coordinators did not devote half-time to career exploration. Some who were released from teaching responsibilities were given other responsibilities by the principal which were not related to career exploration. Others, although given substitute coverage, did not leave their classes.

The most frequent comment among career exploration coordinators is that they needed more time:

> "There are not enough hours in the day to do all that they are asking me to."

For some this was a valid remark, reflecting a sincere effort to implement career exploration. For others, it was related to their lack of initiative in promoting career exploration, a willingness to help out with odd jobs around the school as a convenient alternative, and their reluctance to leave the classroom! There was not enough time because they were not using their time as originally intended. In addition, some career exploration coordinators became too easily discouraged when the materials did not arrive on time or when the teachers did not cooperate. While all of the career exploration coordinators would benefit from motivational or organizational training, it is clear that a few should be replaced for their lack of effort and accomplishments.

The career exploration coordinator has a dual role to play as both teacher and administrator. Many of the career coordinators had to do career education planning between classes which made it difficult to accomplish large projects. Two of the coordinators had at least two full days of substitute coverage and were able to devote longer blocks of time to the program. However, both of these career exploration coordinators were not happy about turning their classes over to substitutes for this purpose. The availability of selected periods during the day for coordination activities is problematic. Schools should be permitted some flexibility in the way they set up the career exploration coordinator's program, but there is an advantage to having full days free for coordination.

3. Communication Among School Teams

The impact of this program on communication among team members appears considerable. A large number of respondents (63%) indicated that the program had affected their communication with team members somewhat or greatly. Certainly the amount of time spent together in training and at team meetings in the schools had to increase the interaction among people from varied positions in the school.

There is also evidence that this program may have given new status to certain departments and individuals. In the majority of the middle schools, specialty teachers such as those in industrial arts and home economics have had planning time only when other subject teachers were teaching, and rarely had the opportunity to meet with other teachers before this program.

> "I had a chance to meet with the industrial arts teachers and find out what they're doing."
>
> --Physical Education Teacher

> "Marilyn Gardner and Sherry Mulder (home economics teachers) are the reasons why this program is so successful here."
>
> --Core Evaluation Team Leader

The program has increased interaction because people are spending more time together during training and team meetings. However, there is frustration voiced by some about the lack of focus in the interactions and the lack of accomplishment of the team meetings. Too much time is being spent filling out forms and ordering materials and not enough time addressing substantive issues:

> "We don't talk substance at these meetings--we just fill out forms."
>
> --Bilingual Teacher

> "I'd like to know who is doing what. I'd like to find out what experiences other teachers are having in their classes."
>
> --Home Economics Teacher

The career exploration coordinators have had responsibility for developing the agenda for the team meetings at their schools. The agendas should focus on issues, not housekeeping details. When the agenda focusses on planning special projects, such as at the Edison, teachers are able to develop greater cohesion and a sense of cooperation.

4. Communication Within the School

The program has had only a modest effect on the interaction of team members with the rest of the school staff, and 37% of respondents indicated that this program has had no effect on their interaction with the rest of the school. This frequency of response is not entirely negatively weighted since several of the respondents occupied positions where a high degree of interaction was already part of their job (e.g. principal, counselor) yet it is large enough to be important.

The frequency of response highlights the overall lack of dissemination of career exploration to other teachers. Some team members did describe presentations before the entire school and the involvement of non-team members in the ordering of materials. However, presentations are only a start and due to all the problems associated with materials, the inclusion of other teachers in ordering is somewhat of a mixed blessing.

The strategies which seem to get other teachers involved are:

1. When the career exploration coordinator or team members work with a cluster of teachers discussing career education content (as opposed to materials) and how it can fit into what teachers are presently teaching.
2. Concentrating efforts on small groups of teachers, rather than trying to cover the whole school at once.
3. A "big event" such as the Career Fairs at the McCormack School, where all teachers had to work with their homeroom classes in preparing for the Career Fairs.

To some extent, the overall lack of dissemination may be due to the concentration of efforts on the team members. In any case, more dissemination to other teachers is needed if the Career Exploration Programs are to be for all students.

5. Community Interaction

So far, the program has had little effect on community interaction at most schools. Over 66% of respondents indicated that the program has affected their interaction with the community very little or not at all. Although this question intended to assess business community involvement, it may have been interpreted by respondents to include community organizations and parents. Either interpretation shows that the emphasis during during this phase appears to have been primarily on in-school activities. There are notable exceptions. For example at the McCormack Middle School 50% of respondents indicated a "somewhat" or "greatly" changed involvement with the community. Undoubtedly, this is attributable to the McCormack's hosting of two Career Fairs. The McCormack Career Fairs are described at the end of this section.

One explanation for the lack of community involvement may lie in the program's emphasis on materials and concerns over time. Since the focus was on the team's ordering of materials, there was not time for arranging community activities. The career exploration coordinators and team members did not view community involvement as a top priority. For some, this shift to community liaison may have been too radical a departure from their normative behavior. Career education must involve community and business representatives and needs to be a priority for all schools.

6. Classroom Implementation

The majority of the teachers interviewed indicated that they were using new career education materials in their classrooms. The participants expressed three major concerns relating to classroom implementation: materials, time, and organization. Concerns about materials have already been discussed. Some teachers overcame problems with materials by developing their own.

The concerns about time are best represented by the following excerpts from our interviews with participants.

> "How much time of my classroom time is enough to be fulfilling my commitment to this program?"
>
> --Home Economics Teacher

> "How can I fit this in when my students are already behind in this subject?" (This concern was more often expressed by academic subject teachers than other teachers.)
>
> --English Teacher

With respect to organization, teachers still lack direction and guidance about what to do in their classroom. Many teachers expressed concern about not knowing what other teachers are doing and were concerned about overlap among courses--teaching a lesson that students might be getting elsewhere:

> "A student could get three years of McKnight at this school and then go to high school and get some more. We really need to figure out who's doing what."
>
> --Career Exploration Coordinator

Some of this lack of coordination stems from the overall emphasis on materials and the fact that teachers developed their implementation plans after ordering materials, rather than developing a framework first. Teachers need assistance in developing a sequential school plan first and then in securing or developing materials to support their plans. Teachers also need assistance in how career education can be "infused" into their classes.

Clearly, there is a need for increased coordination and communication among members of the school teams to determine effective strategies for implementation.

The Boston Public Schools has strengthened its staff capabilities in career education and there are some outstanding examples of program components and classroom implementation. All schools could profit from examining what other schools and teachers have done. Three cases of exemplary classroom implementation are presented at the end of this chapter (Cases A, B & C). Representatives of each school should visit other Boston middle schools to examine and learn from the experience of others.

D. EQUALIZING EDUCATIONAL OPPORTUNITY

The Unified Plan had expressed considerable concern about the needs of special education and bilingual students. In addition, Chapter 622 of the Massachusetts General Laws mandates equal education opportunity for students regardless of sex, race, or ethnic background.

1. Special Education and Chapter 766

In school, the responsibilities of the Core Evaluation Team Chairperson (C.E.T.) include work with the Core Evaluation Team, administrators, parents and teachers. The C.E.T. from each pilot school participated in all aspects of the Career Exploration Project including training and the purchase of materials. Although the C.E.T. is directly involved in student assessments, he or she does not meet with individual students on a regular basis as do the resource room teachers and the teachers of substantially separate classes.

As a group, the C.E.T.s have not implemented much of what they had learned in the training. Part of the reason relates to the role of the C.E.T.--the C.E.T. does not have daily contact with students. However, the problems in implementation encountered by the C.E.T.s are very similar to those described by all participants, i.e. time and materials.

The C.E.T.s have a considerable workload and they lack time--many of them are working without even a telephone which is crucial to their role. As a result, "I gave the materials to the teachers," was a comment frequently heard together with the frustration of not being able to provide assistance in classroom implementation.

Another frequent comment of the C.E.T.s was that the materials which were available as part of this program "were inappropriate for their students." One C.E.T. said, "These students are reading at third grade reading level--the materials are not appropriate for these students."

Due to time problems, and lack of student contact, it appears that implementing career exploration through the C.E.T. was difficult and ineffective. There is need to directly involve teachers of substantially separate classes or the Resource Room teachers in training sessions so there can be a greater impact on students.

2. Equal Educational Opportunity for Boys and Girls

In the spring of 1976 the report, "On the Way to Work" by AIR indicated that only three of the twelve pilot schools had equal male-female enrollment in the same industrial arts and home economics classes. This year there is a considerable change. Among the twelve pilot schools, nine enroll an equal number of boys and girls in industrial arts and home economics in the same classes.

This change is not as dramatic as the numbers indicate since there is evidence that teachers differentiate among the boys and girls when assigning classroom projects. For example, in clothing courses, girls sew while boys use workbooks. However, some teachers and administrators who had been apprehensive about the change are now more supportive in their endorsement of co-education in these classes.

Direct attribution of the change to the Career Exploration Program is difficult. It is probably more accurate to say that the Career Exploration Program provided the opportunity for the Bureau of Equal Educational Opportunity, the Project Monitor, and the Career Exploration Special Assistant to initiate this change.

3. Bilingual Students

At each pilot middle school where there was a significant bilingual enrollment, a bilingual teacher had been involved in the Career

Exploration Program. Our interview sample among these teachers is limited to 3. However, we gained some additional insight into the concerns of bilingual teachers through class observations, discussions, and attendance at a meeting of bilingual teachers involved in this program.

Translation of the materials into Spanish, Haitian-French, Greek, Chinese and Italian is presently being completed. The materials translated were those all teachers had viewed as most successful, and the translated materials will be available during the second phase of implementation.

The concerns of bilingual teachers relate to coordination and materials. Bilingual teachers lack information on what other teachers are doing. This problem is particularly crucial if bilingual teachers are to provide students with equal opportunities. Related to the problem of communication is a second major area of concern: the possibility of duplication of effort. Some bilingual teachers are concerned that their students may be getting too much career education.

> "I'm doing career education, Title VII is doing career education, the students are getting career education in industrial arts."

The Boston Public Schools Title VII program provides career education instruction two times per week for Spanish speaking students. Based on these findings, it is fair to say that a strong need exists for coordination between bilingual teachers and other teachers at the school level as well as on a system-wide basis.

Bilingual teachers also expressed concern that there were no bilingual materials available for purchase at the training session.

> "By chance I found this comic book in Spanish, but there were not bilingual materials there (at the training)."

Materials appropriate for bilingual students have been identified by the Bilingual Vocational Coordinator at the Occupational Resource

Center. These should be presented to bilingual teachers so that they may purchase materials appropriate for their students.

E. PARENTS

The concept of career education includes the involvement of resources which, in the past, may have been excluded from involvement in school programs. Business leaders, community groups, and parents can all play important roles in career education programs to assist in broadening the career opportunities available to students.

Some parents have been involved in the Boston Career Exploration Project since its inception. Parent representatives had served as members of the Career Education Task Force and presently serve on the Career Education Advisory Council. The "Detailed Design" specified the involvement of parents in the career exploration teams at the pilot schools and over 30 parents attended 4 of the 7 summer training days and the 3 days of fall follow-up workshops.

A total of 16 parents who had been members of the pilot school teams were interviewed by members of the City-Wide Education Coalition Technical Assistance Project. All of the respondents had children currently enrolled in the Boston Public Schools and many of them had been previously involved with the schools as transitional aides and/or members of the School Bi-Racial Councils.

1. Parent Involvement

Parents welcomed the opportunity for parent participation on educational planning teams and school related issues. All 16 of those interviewed strongly approved of actions which emphasized parental involvement. When asked "why?", respondents indicated that parents should be knowledgeable about what their children are doing in school and be able to help create programs of greater interest to students:

> "Parents know their children best and more often than not can tell what appeals to and interests their children best."

> "I feel that more parents should become involved in the education of their children. They then could give more support to the teacher, the school and the child."

> "Parents make the difference."

Parents feel their role should be a supportive one, one that could contribute to the creation of vital programs, and geared to the interests of their children. However, parents want a more active role than they have now:

> "They should be involved with the planning of their children's education so that they will understand and can support what is going on."

> "Their role should be more than it is now. There are too many barriers. Parents should be involved in things like this program but with much more involvement."

The experience of parents on the planning teams has helped some parents learn more about what is going on in the schools:

> "(I'm) aware of what is going on and helping in the development of the program."

However, other parents are disappointed in the progress of the schools in implementation and many are willing to help.

> "Nothing's going on in the school related to career exploration. We had a career center and several excited and anticipating parents, a large room and promises of much equipment. The promises have gone down the drain."

> "I'm anxious to get working on the program and at the center, but nothing is happening. The center is not open. Materials just sit there. Teachers don't have time for it. There's no late buses in the afternoon for kids who want to stay there."

> "I'm just waiting to volunteer to do some help. They just don't call. I'd like to help out on the program because it's a very good idea."

2. Workshops

Regarding the summer workshops, parents were about evenly divided in their reactions. About half of those who attended felt that their needs were addressed:

> "I had a chance to review the materials and make needed suggestions."

The other half felt that their needs were not addressed, that substantive involvement was lacking:

> "Parents were kept separate from the 'professionals'. There was no approach made to parents for their input."

Over 60% of the respondents also felt that it was teachers who benefited most from the program.

> "The workshops made teachers more open to the idea of Career Exploration Programs."

3. Reactions to School Programs

Six of the parents said they liked the fact that their children were being exposed to the world of work in a realistic way. They welcomed the materials for the school and the development of programs which will help their children:

> "It helps the kids understand better the concept of work, and it gives them a better idea of what adults have to do for a living."

> "It gives the students an opportunity to learn more about their world and jobs. The students seem to enjoy it."

> "At the middle school level, it is a time that kids start thinking about their future. The Career Exploration Program helps them to start thinking about other fields that they otherwise would not come into contact with in their social level."

Overwhelmingly, parents agreed that their children will ultimately benefit from the program.

4. Program Needs

Parents have many suggestions for making the program stronger. Almost half of their responses relate to the issue of more parental involvement. Their comments include:

> "Get parents more involved. Tell them about what the program is so they can get their children interested. Do a brochure on the programs. Also put the program in more schools."

> "Have to inform more teachers. Some teachers went for program in summer; some didn't. You need to tell more parents about it and give them more information."

The schools need to encourage parental involvement and develop a role for parents in this program.

> "Role of the parents is very unclear. Parents need to feel welcome or know they can contribute and feel free to ask questions so they can learn, too. This is not happening at this school even though the principal and teachers are cooperative."

Parents are dissatisfied with the amount of involvement they presently have in the school programs. They recognize that they can made a contribution and have a sense of what some of the possible involvements might be. However, they do not have a clear sense of how to implement their role. They have not been approached by the school teams to volunteer their talents and this has resulted in frustration for many of them.

F. STUDENTS

During this evaluation, over 150 students met in group meetings with AIR staff and over 50 students were selected from the groups and interviewed individually. The group interviews were designed to provide students with an opportunity to discuss their experiences in schools related to career education. The individual interviews were designed to find out about students' occupational interests.

In 9 of the 11 schools where group meetings were held, the majority of students indicated that they did notice more emphasis on careers this year in school. Students referred to specific activities in their classes and guidance which they had enjoyed. The students in the group were selected by the career exploration coordinator and came primarily from the classes of team members. Therefore their exposure to career education is not surprising and supports our findings that those teachers trained are using career education materials. These students' perceptions, however, do not totally indicate a marked change at these schools since some students had been previously enrolled in other middle and elementary schools. Their judgements about a change in emphasis must be viewed cautiously; however, the overall sense is that students were aware of an increased emphasis in terms of school activities regarding jobs and careers.

In individual interviews, 83% of 43 students* described career education experiences in a wide range of classes, particularly industrial arts, home economics, guidance, history, and science. Students reported filling out job applications, hearing guest speakers, and taking field trips as activities they particularly enjoyed. The student response to the career education activities was positive and most students indicated they would like to participate in more career-related activities in their classes. When students were asked what career education activities would be most valuable to them, "field trips" and "more talk with people doing jobs (I am) interested in" received the most frequent response.

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*The number of total responses to any one open-ended question varied since students did not always provide answers that were directly relevant to the question asked.

In the individual interviews, 27 different jobs were listed by students (N=43) as those that they were most interested in. Some of the jobs mentioned were traditional, with teacher, doctor, engineer, nurse, and secretary most frequently mentioned by no less than 10 percent of these students. Some less common jobs were also mentioned by individual students such as archeologist, marine biologist, and fish market vendor. These individual students explained that their consideration of less common occupations stemmed from actual experience as in the case of the student who wanted to become a fish market vendor; general interest as in the case of another student whose interest in "water" prompted him to consider being a marine biologist; and interest in "travel" and "what other people do" that led yet another student to think about occupations that would speak to her interests in travel and cultural differences. In fact, this latter student had moved far enough along in her thinking to be able to determine that being either an archeologist or a travel agent would allow her opportunity to share her experiences and perceptions of other places through "written papers" and through arranging similar experiences for others.

The three students discussed immediately above were fortunate to have had opportunity to discuss their interests in school. However, although more than 80% of students interviewed individually reported having participiplated in career exploration activities, a little more than half of the students had not had opportunity to discuss jobs of particular interest to them in school and this is partly reflected in the way in which they answered our questions. Students' responses (N=43) reflected a need for assistance in assessing their own abilities and in identifying educational programs that will help them realize their broader goals.

For example, when students were asked to list several jobs of interest to them, there was considerable disparity between the types of jobs they selected. For example, following are lists provided by three different students:

Student A	Student B	Student C
Pilot	Auto Mechanic	Pharmacist
Doctor	Fisherman	Electrician
Hockey Player	Football Player	Carpenter
Teacher		Car Dealer
Basketball Player		Doctor
		News Reporter

The range of career options listed by each student above is fairly typical of responses of more than half of the students we interviewed. Generally students' career choices could be categorized as either glamorous (e.g., professional athlete), human-services oriented (e.g., pediatrician), or, for lack of a better word, basic (e.g., secretary, construction worker). Individual student choices generally fell in more than one of these categories, and thus the jobs mentioned were not in any way related. This implies that students do not yet grasp the "cluster concept" of related occupations as a means of career exploration. That is, students are not yet thinking in terms of related occupations.

Not surprisingly, students said family and friends were the most important influences on their career choices. This was true even in those schools where there had been considerable career education activities. Parents, relatives and family friends were frequently mentioned as models students would like to follow and the reasons why students had chosen certain jobs. This finding emphasizes the importance of involving parents in career education.

In summary, the information from students supports the finding that teachers are increasingly using career education activities. In addition, the student data provides some interesting information which can be helpful in program planning:

1. Students have not discussed jobs of interest to them in school.
2. Students are not yet familiar with the cluster concept of related occupations.
3. Family is the most important influence on students' career choices.

G. EXPERIENCES OF THE PARTIAL-IMPLEMENTATION SCHOOLS

At the 14 "partial-implementation schools", $1,000 was received for materials, one school representative attended the summer training and the representative and the school principal attended the fall follow-up. This was approximately one-twelfth of the resource concentration at the pilot schools.

Because the level of effort expended at the partial schools was intended to be on a far smaller scale than at the pilot schools, the evaluation design was also adjusted to reflect this difference. More time was spent gathering information on the pilot school experience; information gathered about the partial schools was less extensive. We report here on general findings about the partial-implementation schools, but shall have to postpone critical analysis and be especially cautious in interpretation until further research is conducted during the second phase of implementation.

When selected representatives of the partial-implementation schools were interviewed in December, several described a scope of activities which was similar to some of the pilot schools. For example, one building representative described career exploration activities in his school as follows:

> "We have arranged for a place for the Career Information Center--sharing a room with the resource teacher. The home economics as well as one English teacher and science teacher are doing something..."

The problems encountered in the partial-implementation schools mirrored those cited by pilot school staff and included:

1. Inappropriateness of materials
2. Delayed receipt of materials
3. Time
4. Difficulty in implementing career exploration in academic subjects
5. Confusion about exactly what to do.

As was the case with the pilot schools, materials and time head the list.

Since external expectations for the partial-implementation schools were more modest than those for pilot schools, the reported range of activities was somewhat surprising. One explanation for these accomplishments may be that those individuals selected to represent each partial school were truly leaders in their schools and therefore went ahead with program implementation without regard to, or in spite of, the limitations indicated by their designation as partial-implementation school programs. Another explanation may be that since only one person was officially involved at each school, there were none of the administrative problems of coordination and dissemination that occurred when at least 12 people were involved, such as at the pilots. At these schools, the career exploration representative could concentrate on implementing career exploration activities.

Perhaps there was also some merit in the partial-implementation schools knowing that they would be included at a later date. These schools were assured by State and Boston Public Schools administrators of further funding. They did not have to be a pilot for an entire program, and could profit later from the experiences of the pilot schools.

More information needs to be gathered during the second phase of implementation with regard to these schools. The very little data we have raises one question, whether the large amount of money spent on materials at the pilot schools was appropriate, given that the partial-implementation schools seemed to have been implementing activities with far fewer resources. Unfortunately, we do not have enough information on the partial-implementation schools to answer this question with confidence.

EXEMPLARY
IMPLEMENTATION
EFFORTS

EXEMPLARY EFFORTS: CASE A

Career Education and Mathematics

Leonard Brown, a math teacher at the Washington Irving School works with academically oriented sixth graders. He has had previous "management by objectives" experience. Like other teachers, he wrote an action plan during the summer workshop. His plan showed a continuing concentration on the same two concepts of career education each month (i.e., math-related careers and self-awareness), while every month brought different activities and worksheets. In essence, he developed a framework for involvement in career education which continued throughout implementation with new activities.

This teacher, like many others, found that changes in assignments, scheduling, and delayed materials made it virtually impossible to carry out his action plan. As he said in an early interview, "I received some materials, but not complete sets, and about 90% of the materials ended up being too difficult. Obviously, I had to change my plan!"

He dealt with this problem by adjusting his goals and creating materials. He decided to work only with one class and to develop a long-term independent study project with those students, using what might otherwise be called "unused time" to bring career exploration into the curriculum without taking time away from mathematics. Students had career exploration activities to do while they were settling down, when the teacher was called out of the room, during homeroom period, or just before class begins. As an example, while the teacher was monitoring in the hall, the students were filling out a worksheet on "Leadership Characteristics." When the teacher returned, students went on to other things.

Although the equivalent of one full period each week is spent on career exploration, the work is done in small segments of time several times a week. During one observation, 27 minutes of the class period was spent on career exploration. At the beginning of the period, the teacher asked three students to present their special projects to the whole group. After the presentations which took 10 minutes, the teacher asked the group to finish work on the "Leadership Characteristics" (which took about 7 minutes). The class then discussed these characteristics, and the teacher integrated math concepts into the discussion. For example, the students had been asked to rank order their answers. The teacher asked "what rank ordering means" and "how that differs from other ways of ordering things." (He used the example of alphabetical ordering.) While discussing the content of the worksheet, the teacher interjected such questions as, "Well, if 15 of you feel 'honesty' is the most important quality of a leader, and there are 28 of you altogether, can anyone tell me approximately what percentage that is?" This entire exercise took another 10 minutes. The students then put away their career exploration materials and took out their math homework.

Each student in this class maintains a personal career exploration folder in which all their career exploration materials are kept. This has allowed students to work independently, with few specific directions, on sheets they have not yet completed; they can also review work they have done.

For the independent study project, students chose a job of interest, interviewed someone in that job, and answered questions about the type of work the job involved. The students who were interviewed talked very positively about this project, their only complaint being that all the work for the project had to be done on their own, out of school, and that there had been too little time. Their teacher spoke favorably about the independent study project. Having read and graded all the reports, he felt that his students had benefited from their work.

This teacher has found that the materials he developed are a successful alternative to the commercial materials. It is obvious that he is an effective professional who will manage with whatever is available. He has used the Career Information Center even though it is not officially open and has few student-oriented materials. He said, "Well, I took some students down there to think about their projects. There wasn't much there, but we looked through what was. I think they liked it."

"Time" continues to be a major concern of this teacher. He believes he is well organized but is concerned that he must use too much regular class time for career exploration, which cuts into his students' academic work. "There's too much to put into these periods," is his way of phrasing it. Ideally, he would like to have two free periods a week to devote exclusively to career exploration. Since that time is not available he is trying to supplement what he is presently doing by offering special career exploration to groups after school. He says "they haven't been successful yet," but he says he will keep trying.

EXEMPLARY EFFORTS: CASE B

Career Education and Bilingual Guidance

Mrs. Nancy Lee, a guidance counselor at the Michelangelo School, has held her present position for three years. She was hired through an ESAA proposal for Bilingual Support Services. She respects her colleagues highly, and one of her major concerns is that key staff members who have not been part of the team be included soon.

She wrote her action plan specifically to support the development of Career Exploration Programs for the minority population she serves and anticipated working with bilingual teachers to develop programs for the students with whom she works. In September, the Boston Public Schools Guidance Department asked counselors to devote six periods a week to working directly with groups of students on career exploration, and she incorporated this work into her plan.

This counselor's projects have been varied. She has helped the Home Economics Department arrange field trips and guest speakers. (Students have visited the Statler Hilton and have had a guest speaker from the Boston Gas Company.) After these special events, this counselor leads small group discussions with bilingual students on what they learned from and how they feel about the experience. She feels that such follow-up is crucial for these students. She meets weekly with a continuing group of students to do career exploration activities in their native language. She translates worksheets for students to do in class and works cooperatively with a social studies teacher who is a non-team member. She has also translated reference and other materials for the bilingual students.

This translation work warrants further discussion. This counselor's translations, which show both languages, one above the other, help students retain their native language by supporting and improving it and help them develop their skills in English. She bases her choice of what to translate on its potential day-to-day use. Since she feels it is important for the students to have work which is sequential, she has translated one complete series rather than parts of various series. Further, she translates materials which can be used at home. This has allowed parents to become more involved with the education of their children in spite of potential language barriers. Parents and students continue to report the success of this counselor's translation, particularly for the materials that go home.

EXEMPLARY EFFORTS: CASE C

Career Education and Home Economics

Susan Costello and Maryann Urban are home economics teachers, one teaching Clothing, the other Foods. Both have been at the Barnes School under 5 years. Their adjacent rooms allow the possibility of team teaching. Given their specialties, both had been concerned with career awareness before this year, but this is the first year in which that concern was translated into a specific and formal program.

There was little in their action plans themselves to indicate the programs were substantial or exemplary. Both plans were one page and included some basic self-awareness concepts along with specific other concept entries and some chapters from commercial series such as McGraw-Hill to implement these ideas. It would appear that the plans were in fact an exercise of sorts and that substantially more planning was done but not recorded (in these plans).

The teachers decided to do their planning together, particularly in relation to activities outside school (speakers and field trips) since they found this way most efficient. The programs they developed are particularly interesting.

Their first field trip was to the new Quincy Market with both classes. Students were encouraged not only to explore but to ask the vendors about their crafts and jobs. The trip was a big success, and immediately afterwards a second trip was planned to Logan International Airport. While this was a traditional field trip for the school, it was a bit different this year because the students in Home Economics asked questions with a somewhat different focus.

The emphasis on these trips was exposure. "Let the student see and have direct experience with the outside world", said one of the teachers. The teachers heavily emphasized direct experiences because this approach gave students of all backgrounds and all abilities access to information. Since this way of learning did not rely on reading or other academically learned skills, it was available to 'observers', 'listeners', and 'talkers', as well as readers. As the clothing teacher put it, "All kids love field trips--but it's a particularly good way for some students to learn who have had difficulties with more traditional education." The field trips exposed all students to new situations, jobs, and environments, and made learning easier for those who had difficulty with other methods.

Work in class was geared to provide a type of learning experience which had not been part of home economics before: emphasis was on self-awareness. Both teachers encouraged students to express their interests, likes, dislikes, and values. The effort was not to change but to make more explicit, to question and listen to other perspectives. The participation of both teachers in these self-awareness exercises made them particularly effective. For example, the morning the clothing teacher's class was observed, students discussed a sex role stereotyping exercise. The teacher began by saying she had tried the exercise the night before and had been shocked at her own biases and stereotypes. This candor obviously facilitated the rest of the discussion and allowed for more diverse persepectives. The teacher's role remained frank and personal; she was accepting of the students and at the same time questionning. One had the impression from the students' comfort and ease that this classroom experience was not atypical. This skillful focus on self-awareness was intended to offer these students a new perspective and to broaden their educational base, giving them a forum in which to express and test their feelings and ideas.

In summary, the two home economics teachers on the Career Exploration Team are working with their students in two unique ways involving two different types of exposure. The first exposes students to the outside world of work and to those in it through direct experience. The second exposure is, in some sense, to themselves through carefully organized and sensitively run self-awareness activities.

EXEMPLARY EFFORTS: CASE D

Career Information Center at the Edison Middle School

It is clear from the moment one enters the Edison School that there is considerable awareness of career education; posters throughout the school publicize the Career Resource Center. This center was established through a separate Chapter 636 grant and the funds of this project.

The center is impressive in size, scope, and organization. An entire classroom next to the guidance office is used for displays, meeting areas, individual research and office space. Most of the materials in the center were purchased under the separate grant by the career exploration coordinator and come from all over the country. They include teachers' guides, resource kits, occupational information, and audio-visual aids. All are classified by occupational area.

The center is staffed by a full-time career exploration coordinator, Mrs. Betty Feldman, who has been a guidance counselor and has always felt that "career education is something the students need." A high school distribution education student helps part-time with audio-visual equipment and reviewing materials. Aides help with administrative duties and working with students.

The career exploration coordinator maintains for each student an occupational folder which includes the student's occupational interests, results of career-related assessments, and a list of resources the student has reviewed.

On the day it was observed, the Career Resource Center was, in fact, the center of career exploration activities. Teachers came in to borrow materials and discuss field trips with the career exploration coordinator. A guidance counselor was helping a student review career information. One aide was showing a filmstrip to a group of students while another was preparing a presentation for a class. In the words of one member of the Career Exploration Team, "We're able to do a lot for the students this year, and we're having fun doing it."

EXEMPLARY EFFORTS: CASE E

Career Fairs at the McCormack Middle School

The McCormack School calls its Career Fairs "mini-career days," but these days are in no way mini. The McCormack has already held one fair on construction and another on communications, and plans to hold three more this year. Each fair relates to a particular cluster of occupations which is the focus of the school program for a six-week period. Marilyn Gardner, Sherry Mulder and Dan Flaherty have all been instrumental in initiating the Career Fairs program.

The Career Fairs involve the whole school. All teachers are asked to suggest people to invite to the upcoming fair. Initial contacts with employers are made by letter and telephone. During the weeks before the Career Fair, the Career Education Program focuses on that occupational cluster, and many teachers use related classroom activities developed by team members.

The Career Fair runs for about three hours in the morning, and the school schedule is modified for the day. Representatives of industry set up exhibits in the cafeteria, while students begin the school day in their homerooms reviewing the questions they are going to ask at the fair. Then about one-third of the students at a time spend a period in the cafeteria talking with the speakers and exhibitors who represent various careers in the occupational cluster. Afterwards, students return to their homerooms for a period of discussion. In this way, they are prepared before they meet the guests and can talk things over with their teachers and other students immediately after meeting with the employers.

The people students meet at the Career Fairs provide them with role models as well as occupational information. The Construction Fair was attended by almost 30 representatives of the construction industry, among whom were women and minority workers. The most recent fair, which was planned by Evelyn Menconi who was not even a member of the Career Exploration Team, was attended by almost 40 representatives of the communications industry.

An overwhelming 87% of the students who were interviewed after the first Career Fair expressed interest in construction careers. They enjoyed the opportunity to talk with adults in the field about career plans, and some students arranged to make personal visits with their parents to the place a guest representative worked.

After the Construction Fair Nicholas Bergin, the principal, said, "My only regret is that we didn't have more publicity." At the Communications Fair some of the representatives had a dual focus, not only talking with students but preparing publicity for their newspapers or media outlets. Sara Ann Shaw presented the Career Fair on the Channel 4 News.

CRITIQUE OF THE MODEL

As described in the introduction to this report, the Boston Career Exploration Project seemed to be based on several assumptions--on that in order to initiate change, there is a need for:

- a significant amount of funding;
- a teacher training program;
- phased implementation with a concentration of effort going into a sample of pilot schools;
- substantial amounts of materials;
- creation of positions of leadership;
- creation of cross-disciplinary teams;
- an evaluation component to assist future planning.

The overall model for change was mainly supported by the evaluation findings of Phase I of program implementation in Boston. The Career Exploration Project has produced some change in the direction of career education in the Boston Public Schools: teachers (primarily those trained, but others as well) are using career education materials; more teachers have begun to explore ways of infusing career education themes into their programs; and parental and community involvement, although limited, has begun.

Based on this evaluation, a refocussing of effort is needed in the next phase of this project if full implementation of career exploration is to be achieved. Some of the needed changes have already been incorporated into the design for the next phase. Others can be incorporated now in order to realize the goals of the project.

Each of the assumptions on which the model for change was based are listed below with a discussion of the extent to which they seem valid.

Assumption 1: A substantial amount of money is needed to bring about change.

Substantial funding was provided for the project, with the largest amount of money allotted for materials and training. Every aspect of implementation showed concerns related to materials, and, in fact, materials did affect implementation. Teachers indicated materials were a significant factor in program implementation. However, the focus on materials selection led teachers to place exaggerated importance on the need for materials and when materials did not arrive on time or when they turned out to be inappropriate, teachers felt handicapped. Their need to adapt materials and/or develop their own is clear; their need for support and guidance in these efforts is also clear.

The assumption that substantial funding is important in project implementation remains firm although it is difficult for us to say at this point whether the amount allotted was appropriate. What we do know is that this evaluation and related research findings point to the need for a readjustment in the allocation of funds: more emphasis needs to be placed on staff development--on planning, curriculum development and on encouraging teachers to draw on parental and community resources. Less emphasis should be given to purchasing commercial materials. Further, the selection of commercial materials should be seen as supportive of planning and curriculum development efforts. Given the opportunities that career education offers for teacher-generated materials that are tailored to Boston schools as well as the availability of multiple opportunities for using parent and community resources, money should be used primarily to support efforts related to staff development, particularly in the areas of curriculum revision and development by teachers at the individual classroom level.

Assumption 2: Training must be provided for teachers by outside specialists in order to implement career education.

The importance of staff development is evident in the findings. For teachers in many disciplines, career education is a new challenge and how one integrates career education into traditional programs and to what extent career education is pursued are persistent and important questions to address. While training and technical assistance efforts to date have motivated many teachers to initiate career exploration activities in their schools and classrooms, more effort in the direction of staff development should be made. Particular emphasis should be given to the following:

- Development of a framework for implementation. This framework should not be based on purchase of materials, but based on the understanding of career education and the development and adaptation of curriculum appropriate to student and teacher needs.
- Approaches to the integration of career education concepts into courses and programs that have traditionally not included career-related concepts.
- Alternative teaching and learning models. (Career education implies a variety of teaching techniques such as role-playing and simulations which are presently not part of most teacher's repertoire.)
- Inclusion of teachers who have received training in career exploration activities. (Although it is appropriate to initially focus attention on a few teachers, additional teachers should be encouraged and assisted in getting involved.
- Utilization of community and parental resources.

All of these items are especially crucial for meeting the needs of bilingual and special needs students.

Assumption 3: More money concentrated on several (12) schools will have greater impact than resources divided equally among all (26) middle schools and will also provide an opportunity for assessment.

This report describes some of the experiences of the 12 pilot schools. Much has been learned about the problems encountered; some has been learned about program success. All schools would profit from looking at these experiences.

However, since certain partial-implementation school representatives described a scope of activities which was similar to some of the pilot schools, it is questionnable whether a concentration of resources as it was done in this project actually results in change proportionate to the amount of money spent. In some cases, the limited resources made available to the partial-implementation schools had considerable impact.

Could the project have accomplished what it did with fewer pilot schools and a consequently lower cost? The answer is possibly yes, but the large number of pilot schools did allow more schools to begin a wide range of activities and it has brought Boston further along in realizing its goals for career education.

Assumption 4: New materials bring about change.

On the one hand, new materials did bring about changes. It was learned that for the first time many teachers began to focus on career education themes in their classrooms, and students recognized a shift in their programs toward an exploration of career education. Materials were highly visible and were a tangible impetus for change and in this respect they worked. However, new materials were also problematic--they were not necessarily tailored to Boston's needs and they arrived too late. The result was a large supply of unused materials in the schools and a continuing, unmet need for materials suitable for use.

Research has indicated "school districts that were most successful in implementing a variety of activities and had the highest level of teacher involvement were precisely those districts that were developing their own instructional materials."[4] While a review of commercial materials is important, attention needs to be placed on how commercial materials might be adapted to meet unique needs. Even more attention should be given to the adaptation of materials and teacher-generated materials.

For special needs and bilingual students where a large number of materials may not even be available, attention should be given to developing suitable materials.

Assumption 5: A change in leadership positions are needed to ensure program coordination.

Based on this assumption, two kinds of positions were established: 12 positions of career exploration coordinator at the individual schools level, and one position of Special Assistant for Career Exploration at the system-wide level.

The major change in staffing patterns was at the individual school level. The new role of career exploration coordinator proved to be crucial to the changes that occurred. In some schools, the career exploration coordinator was, in fact, a major factor in project success. Some of the schools with hard-working career exploration coordinators offered some of the more innovative programs. On the other hand, when career exploration coordinators did not adequately fulfill their responsibilities, overall program success within the total school suffered. While there were isolated instances of success at these schools, effective program coordination was lacking.

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[4] Dunn, J. A., et al. Instructional Systems Options and Guidelines for the Dissemination and Implementation of Career Education. Palo Alto, Calif., American Institutes for Research, 1974.

Thus it appears the career exploration coordinator is a key leadership role. Careful thought should be given to the selection of the person who fulfills this role at each school as well as the training, definition of responsibilities and time assigned to that person.

Coordination at the system-wide level was important and was provided by the Special Assistant. However, during this phase of implementation, the person filling the position of Special Assistant had a wide range of other responsibilities as well. During this phase of implementation, the responsibilities for this position were not clearly defined. The rule of Special Assistant must be more clearly defined and the Boston Public Schools administration must provide time and support to the individual who holds this position.

Assumption 6: Cross-disciplinary teams, including parents, are necessary to bring about involvement of the entire school staff and community involvement which are a part of career education.

The cross-disciplinary approach to program implementation resulted in an increase in communication among school team members. This was especially true for the industrial arts and home economics teachers whose schedules usually did not allow much opportunity for mixing with teachers of other subjects.

While intra-team communication was increased through this approach, for the most part overall dissemination of the program to non-team members was not achieved. Deliberate attention needs to be given to planning strategies for including non-team members in career education discussions, perhaps through holding all-school career events.

The composition of teams has tended to be too heavily concentrated on home economics and industrial arts. If the composition of teams from the "second-phase" schools included a wider cross-section of teachers, overall dissemination would be somewhat easier. The following composition would be preferable:

2-3 parents
1 guidance counselor
1 special needs teacher or resource room teacher
1 bilingual teacher
4 academic teachers
1 principal or vice-principal
1 industrial arts teacher
1 home economics teacher

The schools have not fully explored the potential for parental involvement in this program. Greater parental participation in career exploration activities would broaden students' exposure and provide them with a wider range of role models than they normally have. The schools are just beginning to explore the role of parents in career exploration, as, for example, at the Thompson School where parents have been active in the Career Exploration Center. Greater attention should be placed on soliciting not only parental support, but active contributions of parents in school activities.

Assumption 7: An evaluation of this initial implementation effort could assist in future planning.

During this project, the evaluation staff met regularly with the Special Assistant for Career Exploration, the State Project Monitor, the Career Exploration Advisory Council, the Career Exploration Coordinators Group and representatives of M.C.O.E. In addition, a member of the evaluation staff met with each pilot school team to thoroughly discuss preliminary findings.

Preliminary findings have been used in several ways already:

- Fall follow-up training sessions were modified to more closely meet the needs of program participants.
- School programs have been modified to include a wider scope of activities.
- The design of Phase II of program implementation is based on preliminary findings outlined in an interim report and described in a formal debriefing session.

This report further identifies program strengths and problems and lists system-wide as well as school program recommendations which are intended to lead to program improvements.

RECOMMENDATIONS

As a result of this evaluation, there are four areas of concern which will require a change in the present direction of the Career Exploration program in Boston. Each of these areas of concern, together with specific recommendations, are discussed below.

Students' Career Choices and Interests

Although we recognize that career exploration aims to broaden students' familiarity with occupations, the present occupational interests of students represent an important starting point for career exploration. Students' present occupational interests can be used to interest students in career exploration activities and can be used to teach students some of the generic concepts of career exploration, such as career planning and self-assessment. The school programs presently do not provide specific information to students on the occupations which they are tentatively considering. Students' present occupational interests can provide direction in curriculum planning and in the use of guest speakers and field trips.

> Recommendation: Each school should make an effort to determine occupational interests of their students and provide opportunities for those students to explore occupations of interest to them.
>
> A system-wide survey of students' current occupational interests would assist the schools in making curriculum and program decisions. We recommend that students' occupational interests be determined in selected schools this Spring as part of the Phase II evaluation process in which the Middle Schools will be participating.

Information is also needed on the: employment patterns of Boston Public Schools graduates; local employment market information; the choices made by recent graduates and options available to them; and parental concerns and experiences. These variables have important implications for curriculum decisions and are not presently being used in the planning process. Such information can assist students with planning and preparation for their first entry into the labor market. In addition, a "look at reality", can provide teachers with an opportunity to discuss issues related to employment, such as coping with transitional and long-term employment, lay-offs and changing labor-market conditions.

> **Recommendation**: The School Department should obtain local labor market information and information on employment patterns of recent graduates for use by teachers to assist students in career planning.

Materials

A much greater emphasis should be placed on curriculum adaptation and development by individual teachers, rather than the bulk purchasing of commercially-prepared materials. This will provide teachers with an opportunity to present activities which are specially tailored to their students' interests and needs and will enable teachers to capitalize upon their own experiences as well as those of students, parents, and the business community. In this way, the emphasis is on staff development, rather than the purchase of materials. This recommendation is consistent with the findings of a recent project of the American Institute for Research study which reported that new educational techniques *per se* will not automatically guarantee dramatic improvement in student achievement.[5]

Teachers encountered too many problems with the commercial materials purchased including inappropriateness of reading level and delayed receipt. Teachers should first develop a conceptual and operational framework and then develop or adapt materials to support their plans.

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[5] American Institutes for Research, Impact of Educational Innovation on Student Performance, Palo Alto, Calif., 1976

Recommendation: The emphasis during the next phase of the program should be on the adaption and development of materials by individual classroom teachers and the training of teachers in methods for such adaption and development.

Time for Increasing Staff Involvement, Program Development and Coordination

Time is needed by the Special Assistant, the career exploration coordinators and all program participants to plan for further implementation of the program.

Recommendation: The Associate Superintendent for Education should schedule meetings as listed below for increasing staff involvement, program development and coordination.

A. Hold weekly planning sessions of team members to adapt and develop materials and plan for organization of career exploration instruction and dissemination to other teachers. These meetings should be open to all school staff and parents.

B. Hold school-wide program adaptation and development sessions four times per year when the school teams can work with groups of teachers who are not yet involved in career education.

C. Hold system-wide program adaptation and development sessions one full day per year when each school can carry out a major project related to career exploration, such as development of a community resource directory.

The implementation of a system-wide policy for meetings will demonstrate that the administration of the Boston Public Schools is supportive of teacher efforts and interested in further implementation.

Teachers will also need to spend time during the school day and out-of-school on career education planning. The three suggestions listed above should be in addition to the regular training and technical assistance activities and are not meant to be the only opportunities for planning further implementation. Full implementation can not be accomplished if the suggestions listed above are the only planning vehicles.

Coordination of Boston and State Fiscal and Program Planning Efforts

The Boston Public Schools should demonstrate its own commitment to career exploration and assume a portion of the program's costs. The costs of this project are now being borne entirely by the State Board of Education. In order to ensure that the program will continue when external funds are no longer available, the Boston Public Schools should begin now to assume an increasing share of the costs of the program.

> Recommendation: The Boston Public Schools should assume an increasing share of the costs of this program and should be responsible for 25% of the costs of the program beginning in July 1977.

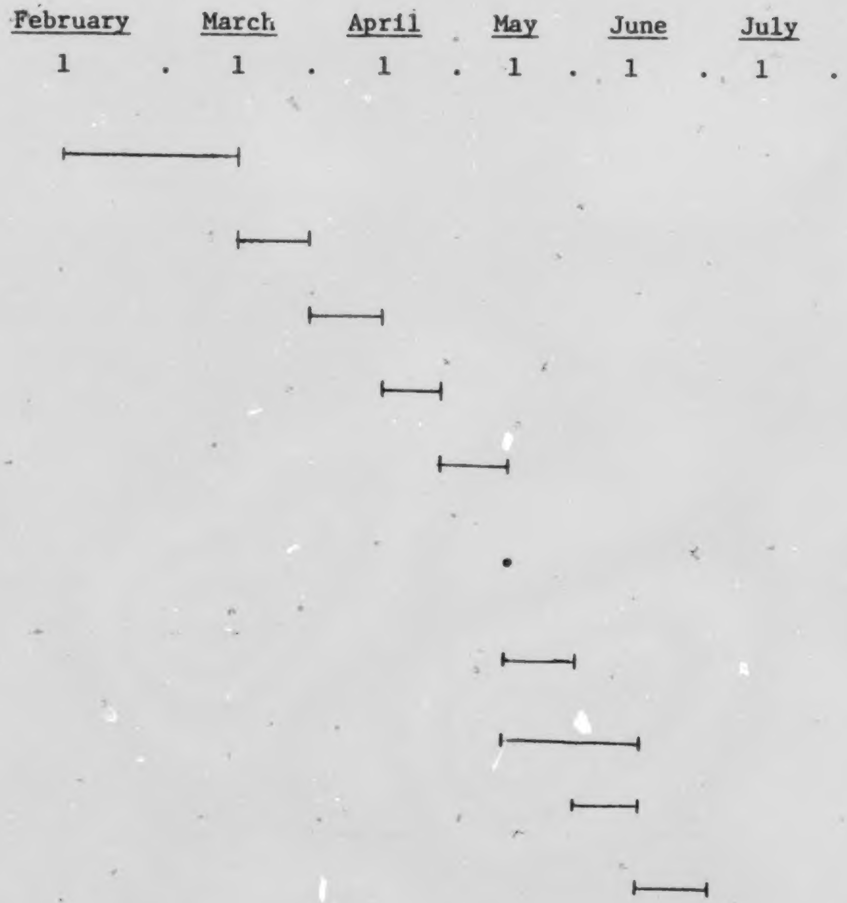
Planning for implementation by schools and contractors is difficult when the program design and budgets are not approved until shortly before implementation. This uncertainty can result in too much effort being spent in making alternative plans, when the effort should be spent on future program planning. This project was designed and funded less than one month before program implementation which resulted in limited time to plan training sessions, arrange visits, order materials, etc.

The Boston Public Schools has developed a cooperative working arrangement with the State Bureau of Equal Educational Opportunity. The city and the state should plan now for future implementation in order to ensure program coordination and continuity.

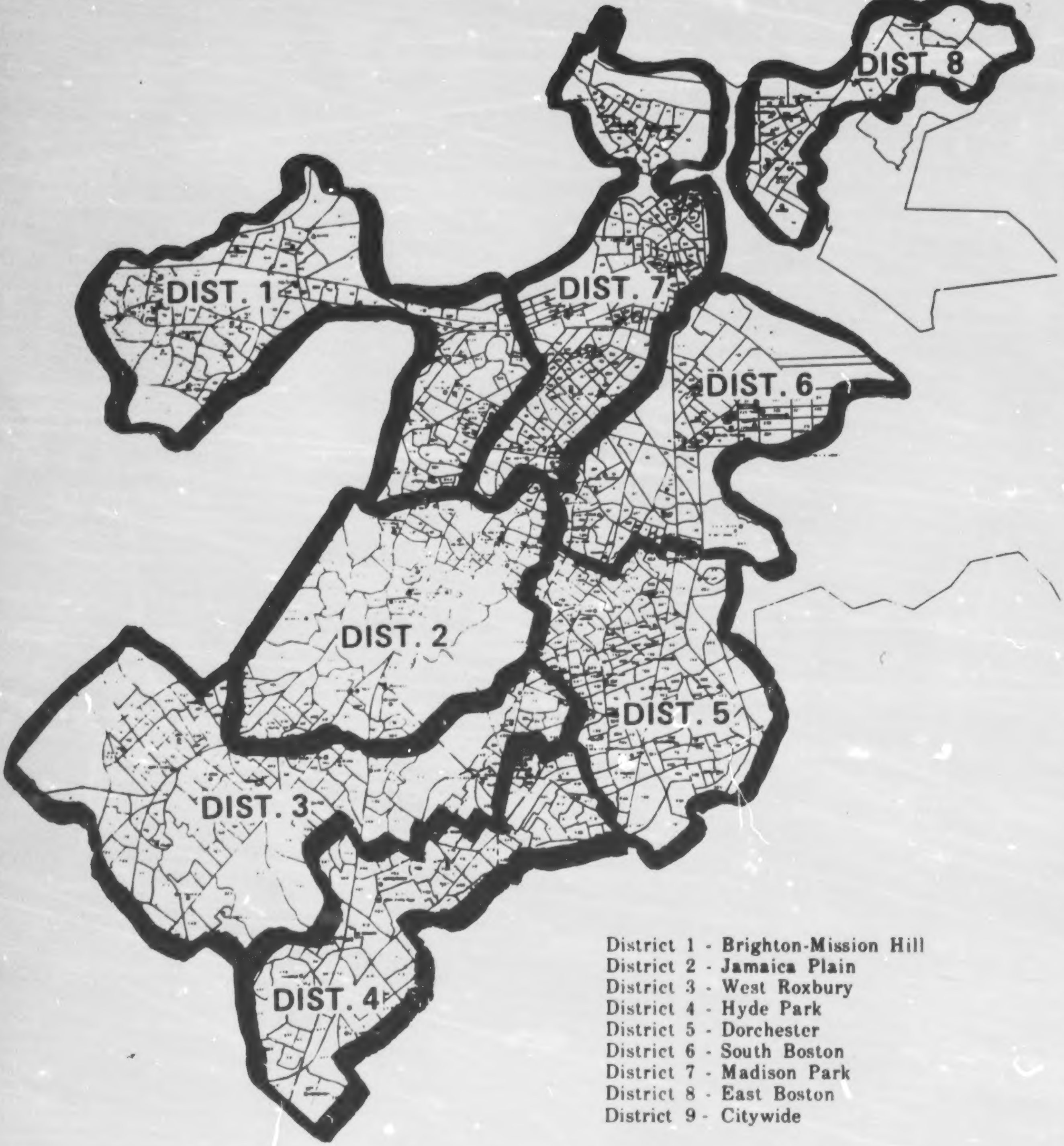
> Recommendation: The School Department should begin fiscal and program planning in February for the implementation efforts which begin in July, 1977. A suggested planning calendar is shown on the following page.

Suggested Planning Calendar for Career Exploration Implementation beginning July, 1977

1. Collect suggestions from participants, contractors and Career Education Advisory Council
2. Prepare outline of Project proposal
3. Review of Outline by Career Education Advisory Council and participants
4. Prepare Program Design and Proposal
5. Issue Request for Proposals for Contracted Services
6. Approval of Design and Proposal by Board of Superintendents and Boston School Committee
7. Approval of Design by State Board of Education
8. Selection of School Participants
9. Selection of Contractors
10. Approval of Contractors and School Participants by Board of Superintendents and School Committee



APPENDICES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DIST. 1
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DIST. 6
DIST. 2
DIST. 5
DIST. 3
DIST. 4

District 1 - Brighton-Mission Hill
District 2 - Jamaica Plain
District 3 - West Roxbury
District 4 - Hyde Park
District 5 - Dorchester
District 6 - South Boston
District 7 - Madison Park
District 8 - East Boston
District 9 - Citywide

APPENDIX A: PILOT SCHOOL PROFILES

Presented in this section are individual profiles of each of the pilot schools on which this report is based. For each school, we provide:

- summary of school's initial plan for implementation
- a description of the program implemented
- a report of participants' responses
- school-specific, action-oriented recommendations.

The school profiles will provide new direction for schools as they continue to work toward realizing their program goals.

LIST OF SCHOOLS

Joseph H. Barnes Middle School	District 8
Grover Cleveland Middle School	District 5
Mary E. Curley Middle School	District 2
Thomas A. Edison Middle School	District 1
Washington Irving Middle School	District 3
Solomon A. Lewenberg Middle School	District 3
Charles Mackey Middle School	District 9
John W. McCormack Middle School	District 6
Michelangelo Middle School	District 7
William H. Taft Middle School	District 1
Frank V. Thompson Middle School	District 4
James P. Timilty Middle School	District 7

JOSEPH H. BARNES MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The action plan aimed for an infusion approach with a concentration on one class or cluster by each team member. The plan described a developmental approach with emphasis in the sixth grade on self-awareness in each occupational cluster group. The seventh grade builds on sixth grade efforts, concentrating on life styles, working conditions, and the training needed in the occupational clusters. The eighth grade examines specific job titles and descriptions within occupational clusters, concentrating on job requirements of specific occupations. The team also set a goal to establish a Career Information Center by October 31, 1976.

The school plan included the development of a student advisory committee "to aid in the development and evaluation of the Career Exploration Program." The plan states that the career exploration coordinator will assume the responsibility to "actively involve and take advantage of community resources." Finally, the plan described specific attention to incorporating existing educational components (bilingual, multi-cultural, 766, World of Construction, energy programs) into the Career Exploration Program.

Program Description

> The following findings are based on interviews with eight team members and six students.

Thus far, the developmental approach planned has not been formally instituted. Also, team members have not necessarily confined their career exploration activities to one particular class. In fact, in some cases, far more than one class or cluster of children are being served by the team members. Due to changes in staff and various other circumstances, the Career Information Center opening has been delayed. It is expected that the Career Information Center will open in January. At the present time, a room has been allocated and renovations are in progress.

Interest in career exploration is not new at the Barnes Middle School. Last year, the Industrial Arts Department piloted the program "World of Construction" and "Power Technology". The school also participates in Metro-Annex, a part-time magnet program which exposes students to law and justice, professional athletic, retailing and industrial careers. This school has also previously sponsored career week programs.

During this phase of career exploration, team members have infused excellent Career Exploration Programs in their own classes. For example, the team members in the Home Economics Department initiated field trips to the Quincy Market where students have had career-oriented discussions with the market vendors, and a field trip to Logan International Airport which is located near the school. The students who were interviewed spoke highly of these trips and looked forward to future career exploration activities in home economics.

Another positive feature of this program is the involvement of all of the special needs resource teachers. This involvement is noteworthy since these individuals had not been trained as team members. Also, the program of the bilingual teacher on the team is working particularly well. He is working with one class and, to date, the students have been involved in such projects as: mapping places of work in their neighborhood, interviewing adults in fields of interest to them and, through these interviews are setting up possible field trips for the spring.

All of these positive experiences have been accomplished despite several circumstances which interfered with smooth implementation of the expected plan. More specifically, the career exploration coordinator was replaced in September due to illness, and the present coordinator then assumed the responsibilities for leadership. Since the first coordinator handled all the initial organizing, ordering and planning for the program, this transition has been a difficult one. The energy of the entire team and, in particular, the career exploration coordinator, has had to be devoted to reorganization and planning rather than actual implementation. Other problems encountered were shifts in the team membership and delay in receipt of materials.

While the overall plan for implementation has been stalled due to an unexpected shift in staffing, the extent to which this program has been implemented is impressive. Many individuals are working very hard and have exemplary programs. Likewise, the present career exploration coordinator is attempting to lessen the gap between where they are at present and where they would like to be.

Recommendations

1. Devote time in early January to listing and rank-ordering specific concerns of team members as well as listing future interests.

For example, teachers have questions about the amount of time they should allot and whether what they are doing fits with overall school goals. Set aside meeting times to discuss individual teacher's needs and the types of specific help they would like from the career coordinator and put these needs on paper so that the career coordinator will have something specific to work from. This is especially crucial due to previous setbacks, and will facilitate the use of technical assistance.

2. Continue efforts to establish Career Information Center and simultaneously develop methods for staffing and use, etc.

In this way, as soon as the area is ready, there will be no time delay in making it available for staff and student use. One task should be to inventory all the materials in the building to locate misplaced Career Information Center materials and to catalog other materials to allow for sharing and maximum use.

3. Develop strategies for delegating and coordinating responsibili-

ties to lighten the burden on the career coordinator and to take advantage of some of the talents and skills of other team members.

4. Develop specific plans and strategies to take full advantage of community resources.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "King Career Comics" (5)*
- "Careers in Focus" (3)
- "Careers and Me" (2)

Problems associated with materials:

- Delay in arrival (5)
- Career Information Center materials temporarily misplaced (4)
- Inappropriate for some students (special needs, bilingual) (4)

Training

Most valuable aspects:

- Money to spend on materials (4)
- Team time (1)
- Awareness (1)

Recommended improvements:

- Less emphasis on ordering and disseminating materials (5)
- More time to review the materials (1)
- More teachers need to be involved (2)
- More focus on "talk" (1)

Interactions

Effect on intra-team interaction:

- Greatly (2)
- Somewhat (1)
- Little (this includes three resource teachers not specifically on the team) (4)
- Not at all affected (2)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Not affected (3)

Effect on intra-school communication:

- Not affected (5)

Problems in Implementation

- Change in coordinator (due to the illness of the first coordinator (5)
- Materials (5)
- Lack of time to implement career exploration and flexibility with that time (5)
- Career Information Center: delays, lack of space, confusion about location of materials
- Need for better definition of teacher role ("How much time should I be spending on career exploration?" "Am I going in the right direction?", etc.)
- Need for more help from career coordinator (2)
- Community resources not fully taken advantage of (1)

Factors Contributing to Change

- Materials (5)

Program Strengths

- Existence of accessible community and valuable (interested) resources (Logan International, Community Center, businesses) (1)
- Content of career exploration, high motivator (1)
- Staff actively involved--positive and enthusiastic (1)

Expressed Needs

None mentioned

Students

Experiences:

- Positive, interested and aware of changes (new emphasis) in career exploration. Specific mention of active team members. (6)
- Have more field trips (2) (great field trip to Quincy Market)
- Bilingual good (2) (neighborhood mapping and interviewing
- Positive feedback about home economics field trips (1)
- Bilingual students enjoy career exploration in bilingual class (1)

Preferences:

None mentioned

GROVER CLEVELAND MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The Cleveland plan called for utilization of career exploration materials for students in classes of team members; establishment of a Career Information Center (C.I.C.) staffed by the career coordinator, guidance counselor and an aide; and specific emphasis for the 766 population through a defined role for the CET. The plan also delineated the specific role and responsibilities for the career coordinator.

Program Description

> The following data is based on interviews with six members of the school team and six students, as well as on site observations.

There has been some modification of the plan in the course of the first phase. The target population has consisted of three clusters totalling 390 students, but not all students seen by team members are being exposed to career exploration materials. In addition, the specific emphasis for special needs students through the Core Evaluation Team Leader has been modified due to other demands of that position. The purpose for the C.I.C. is being redefined--emphasis on the center for general student use has been questionned and the development of the center with primary emphasis as a major teacher resource is now being considered. There have not been any school constraints in this phase of implementation.

Career exploration is not new to the Cleveland School and undoubtedly prior experience has made implementation easier. In 1975-1976, the school instituted co-educational classes in industrial arts and home economics. In addition, the Industrial Arts Department piloted the "World of Construction", and individual staff members adapted this program to meet Boston's needs. This is also the second year the career exploration coordinator has not carried a full teaching load.

The program at the Cleveland has capable leadership. The career coordinator is a strong leader and is quite accessible to the staff when he is needed. The principal is strongly and specifically supportive of the program, and works closely with the career coordinator.

Another program strength is the "special group program" set up by the career exploration coordinator. This is a weekly program for small groups of students who spend time exploring the community on field trips with a Boston State College graduate student. This program exemplifies the cooperation between the Cleveland and community schools. As part of this relationship, the community schools provide a van to the Career Exploration Program whenever a small field trip is planned by the team or career exploration coordinator.

The Career Information Center has been in operation since September and is located in a spacious area adjacent to the library. It is open during the school day and also serves as the career exploration coordinator's office. The center is fully equipped as a resource room and is used frequently by teachers for planning and development periods. The center is not generally used by students.

The program is "on schedule" from the participants' perspective and they are satisfied with their progress. They have developed a C.I.C.; the career exploration coordinator has accomplished the majority of objectives established for him; career exploration is being implemented in academic classrooms; and specialty area teachers are concentrating on the proposed cluster areas. Considering the enthusiasm of the staff and the career exploration coordinator, the school's previous involvement and commitment to career exploration, these accomplishments are not surprising.

Recommendations

1. Coordinate and monitor efforts of participants to decrease

possibility of saturation, duplication, overlap.

2. Devote time to developing strategies for involving more non-team staff.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "Careers in Focus" (2)*
- "King Career Comics" (2)
- "Discovery" (1)
- Random House (1)

Problems associated with materials:

None mentioned

Training

Most valuable aspects:

- Team work time (2)
- Heightened awareness (mentioned by academic teachers) (2)
- Support for career exploration from hierarchy (central office, etc.) (1)

Recommended improvements:

- Need for more implementation ideas (3)
- Need for more time to review content of materials; (ordering and dissemination overemphasized, too few vendors) (2)
- Need for more guidance on program content and methods of implementation; (heavy burden on participants to make program a success) (1)

Interactions

Effect on intra-team interaction:

- Greatly (2)
- Somewhat (3)
- Not at all (1)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Greatly (1)
- Somewhat (1)
- Very little (4)

Effect on intra-school communication:

- Greatly (1)
- Somewhat (2)
- Very little (1)
- Not at all (2)

Problems in Implementation

- C.I.C.: What is it for? (1)
- Time to infuse into curriculum (1)
- Need for more team meeting time (1)
- Need for more direction (1)
- Saturation: "Will the kids be fed up with this if they get a lot of it?" (1)
- Discipline during career exploration time (generally) (1)

Factors Contributing to Change

- Individual interest (3)

Program Strengths

- The career coordinator (1)
- Cohesive staff (1)
- Orientation of students (This type of program makes sense to them at this point as many will begin work during or following high school)

Expressed Needs

- Technical assistance for implementation of ideas (5)
- Help in allotting time for program (1)
- Help in expanding program to include more non-team members (1)
- Models for development (1)
- Maximize potential for C.I.C. (1)

Students

- Not consciously aware of program, but interested in discussing concerns

MARY E. CURLEY MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The action plan prepared by the Curley team specified modification of all existing courses to reflect career education principles in the Industry-Related and Food-Home-Health-Related clusters as well as the generic principles of career education. The concentration in grade 6 was to be on self-awareness and an introduction to career awareness. Grade 7 was to include career exploration in all three clusters of the Unified Plan and the gathering of information. Grade 8 was to concentrate on specific job descriptions, strategy formation and decision-making. Exploration of the Business-Distribution-Government cluster was to be the responsibility of the typing teacher whose course would be modified and who would then be designated as the career education teacher. In addition, the plan called for the establishment of a Career Information Center in a room across from the principal's office, to be shared with the Guidance Department and the Core Evaluation Team Chairperson.

Program Description

> The information presented is based upon three visits to the school and interviews with six team members.

Implementation of career exploration has actually been more diffuse than was initially planned. The teachers who participated in the workshop have been modifying their courses to include information on related careers. However, this infusion process does not follow the developmental and organizational specifications of the plan. For example, the career education course taught by the former typing teacher actually covers a broader spectrum of careers than the Business-Distribution-Government cluster.

The Career Information Center has yet to be established due to problems in the renovation of the room and arrival of the materials.

There has been delays on the part of the Planning and Engineering Department in measuring and partitioning the room. The measuring has now been completed and the partitioning should begin shortly. Unfortunately, some of the equipment (including file cabinets and desks) which had been ordered for the Career Information Center have been stolen, but arrangements are being made for replacements.

During the past school year, the principal of this school had been an active member of the Career Exploration Task Force and a strong supporter of the development of the Career Exploration Program. Home ecomonics teachers had conducted field trips to City Hall, "Where's Boston?", and the New England Flower Show. In addition, industrial arts teachers had worked with the Mathematics Department in the development of lesson plans which integrated math and industrial arts skills.

This year there has been considerable communication with the community in this program. Field trips have been conducted to Chinatown, Quincy Market, Haymarket and Stop & Shop. The career exploration cocoordinator has written letters describing the program to parents and members of the business community who have been solicited as guest speakers and resource personnel. A resource directory of guest speakers for career education has been compiled.

To reflect its increasing focus on career education, the Home Economics Department has modified its courses, e.g. food services to restaurant services. The change has been more than just in nomenclature: the teachers have added career education activities, film strips, and field trips to their courses. The home economics teachers have also produced a fashion show.

Among the interesting activities currently planned are a talk by the principal to the local Rotary club and the development of a slide/tape presentation on career education.

All teachers are aware of the principal's strong interest in career education. There is a cadre of intelligent, cooperative teachers who have a good understanding of career education and who have initiated interesting activities in their classrooms. These teachers have begun to involve other teachers in the school. Some teachers are frustrated, however, by the lack of coordination and involvement of other teachers. Teachers generally lack familiarity with what the others are doing. There is coordination within departments, e.g. Home Economics, but coordination among team members and across the entire school has not been accomplished.

Recommendations

1. Concentrate on substantive issues during team meetings. Some possible agenda items are: determining exactly what people are doing in their classes; determining whether the model for implementation is viable; planning a school-wide activity.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- Butterick Filmstrips (1)*
- Economics book (1)
- Laidlow health text (1)
- "Careers and Me" (1)

Problems associated with materials:

- Delay in receipt (3)
- Lack of materials for this subject (1)

Training

Most valuable aspects:

- Materials (3)
- Increased awareness of career education (2)
- Delegation of decision-making to team members (1)
- Parent-participation workshop (1)

Recommended improvements:

- Larger spectrum of teachers represented (1)
- Review of materials which had been previewed or successful in other schools (2)

Interactions

Effect on intra-team interaction:

- Great (1)
- Not at all (4)

Effect on interaction with the community:

- Somewhat (4)
- Very little (1)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on intra-school communication:

- Not at all (3)
- Somewhat (2)
- Great (1)

Problems in Implementation

- Materials (3)
- Getting other teachers involved (2)
- Lack of time (1)

Factors Contributing to Change

- Total program (2)
- Team (1)

Program Strengths

- Home economics teachers (3)
- Practical and relevant program (2)
- Principal (1)

Expressed Needs

- Teacher training (4)
- Training of non-team members (2)
- Technical assistance (1)
- "Someone to show me what's available" (1)
- "Strategies for infusion" (1)

Students

Experiences:

- Enjoyed field trips
- Lacked information on how to obtain occupational information

Students (continued)

Preferences:

- Would like more guest speakers and opportunity to explore occupations of interest to them

THOMAS A. EDISON MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The plan of the Edison Middle School involved infusion of career education materials into the classes of team members. Further, the plan involved a strong emphasis on the Career Information Center (called the Career Resource Center here).

Program Description

> These findings are based on one school visit and interviews with six team members and twelve students.

A considerable amount of planning had been done by the career exploration coordinator who was awarded a grant last spring for developing the Career Resource Center. The career exploration coordinator devoted time in planning for implementation and reviewing career education materials for students and teachers.

Also last year, two of the present team members had used career education materials and the "Bread and Butterflies" program had been presented in the school.

The Career Resource Center (CRC) is located in a classroom adjacent to the guidance office and is well stocked with material for both students and teachers. The CRC is also well staffed, with a professional aide and a high school cooperative education student. Probably the most outstanding aspect of the center is its organization: occupational files are maintained for each student, teacher materials are filed according to occupational area; and various interest assessment instruments are used for each grade level. The center is used frequently by teachers, the guidance counselor and small groups of students.

There is a close-knit team of teachers that is working diligently to implement a career education program at the school. The career exploration team is working on a plan to insure attention to all occupational clusters, and is exploring alternative strategies.

Teachers have a wide variety of materials available to them and many have shown considerable initiative in developing materials suitable to their needs. One of the science teachers offers a course in Interior Design and had already taken three field trips. A mathematics teacher has developed many of her own materials. In addition, the career exploration coordinator is well aware of the range of materials available and is able to assist teachers in reviewing materials.

Recommendations

1. There is a need to involve a wider group within the school. Team members should consider working with small groups of teachers within the school in order to assist them in utilizing career education materials.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- Own materials (2)*
- McKnight (1)
- Free materials
- Various tests (1)

Problems associated with materials:

- Need for discretionary funds (1)
- Need for hardware (1)

Training

Most valuable aspects:

- School working together (2)
- Materials and resources (2)
- Contact with MCOE (1)

Recommended improvements:

- Larger cross-section of publishers (2)
- Presence of students (1)
- Unit-writing (1)
- Trainers should demand more of participants (1)

Interactions

Effect on intra-team interaction:

- Somewhat (1)
- Very little (1)
- None (1)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Greatly (3)
- Not at all (1)

Effect on intra-school communication:

- Greatly (2)
- Somewhat (1)
- Very little (1)
- Not at all (1)

Problems in Implementation

- Administration scheduling (1) and support (1)
- Apathy among non-team members (1)
- Time for teacher training (1)

Factors Contributing to Change

None mentioned

Program Strengths

- Meeting needs of career education ("opening up new fields") (1)
- Career exploration coordinator (1)

Expressed Needs

- Involvement of entire school (2)
- Understanding and compassion of administrators at all levels (1)
- Time (1)

Students

Experiences:

- Considerable involvement reported among students of team members
- Students particularly enjoyed field trips and guest speakers

Preferences:

- More field trips and guest speakers

WASHINGTON IRVING MIDDLE SCHOOL

Summary of Initial Plan for Implementation

Generally, the career exploration team of the Washington Irving anticipated infusing career awareness experiences into their curricula. Central to the implementation plan was the development of a Career Information Center. This center was to provide a variety of services for teachers as well as students. The Guidance Department would use the center for small groups of children and help facilitate faculty use of the center. The center was to be staffed with a full-time aide who would: set up the Career Information Center; catalog and organize materials, seek out and order free materials; and work with students directly in helping them use the center. This center was to be located in an empty classroom.

The program was also to include testing to aid in the infusion of career awareness in relation to the three occupation clusters: (1) Industry-Related, (2) Foods-Home Services-Health-Related, (3) Business-Distribution-Government-Related. An adaptation of the "John Holland's Basic Personality Inventory" was suggested to fulfill the testing needs.

Program Description

> The following data is based on site observations and interviews with all nine members of the team and six students.

As of November 1, the Career Information Center had not been established and the room initially allocated for the center had been changed. There were a number of problems in developing a Career Information Center. Specifically, approval to renovate the classroom was delayed and the materials anticipated for the center did not arrive. Also, due to scheduling and other in-school needs, the space for the center was shifted to part of another room. An aide was not assigned to work in the new center until December.

While it is disappointing that the Career Information Center has not been established, some of the efforts of the Irving School are exemplary. Specifically, a sixth grade math teacher implemented an independent study project in career exploration. The students in this grade class interviewed professionals working in careers of interest to them and then prepared booklets about what they had learned. Another team member ran a film series for students in the Social Studies classes. He devoted full weeks to career exploration with those students not participating in "The Moving Game", a part-time magnet program.

The Washington Irving School has had considerable prior involvement in career exploration projects and activities. It has offered home economics courses which included consumer education and health; a health course which examined career possibilities in that field; and courses in graphic arts which introduced students to silk screening, lettering, leather, jewel work and photography. Eighth grade students have gone on field trips and viewed films related to career exploration, and students have been involved in "The Moving Game" which provided an opportunity to get to know the city and people working in it.

Interviews with students yielded a positive response to their work in career exploration and a desire for further expansion of program activities.

Recommendations

1. Concentrate efforts on establishing a Career Information Center: several specific suggestions are (1) Define the role of the guidance counselors in relation to the Career Information Center. (2) Identify realistic uses and publish functional schedules for the center.

2. Coordinate efforts to allow more sharing among team members in

relation to what they are doing, how it relates to overall school program goals, and how programs can be strengthened.

In relation to this, overall goals and objectives need to be set and specific classroom teacher plans must be revised. The need for long term and short term goals will diminish the possibility of duplication of service and should also increase staff's general understanding of the program's purposes and direction.

3. Consider ways of drawing parents into the program, perhaps by having them meet with small groups of students at the Career Information Center.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- Noble & Noble (4)*
- McGraw-Hill materials (3)
- Films (1)

Problems associated with materials:

- Materials delayed in arrival (1)
- Materials not sufficiently reviewed in terms of content (1)
- Materials too difficult for academic level of some students (1)

Training

Most valuable aspects:

- Curriculum development (2)
- Heightened awareness (2)
- Overall sense of all aspects of training as being valuable (4)

Recommended improvements:

- More vendors (3)
- More intensive training and help in establishing Career Information Center (3)
- More information about what other program participants are doing (3)

Interactions

Effect on intra-team interaction:

- Greatly affected (1)
- Somewhat affected (3)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Not affected (4)

Effect on intra-school communication:

- Not affected (4)

Problems in Implementation

- Various aspects of materials a major problem (4)
- Career Information Center was considered by principal, guidance, and career coordinator as a major problem
- Need for direction: "What I'm doing, is it right?" (2)
- Need help implementing (3)

Factors Contributing to Change

- Materials (6)
- Interest of team members (7)

Program Strengths

- 'Good team' healthy attitude of team members (2)
- Cooperation among teachers as well as with administration (2)

Expressed Needs

- More appropriate hands-on materials
- Training with technical assistance needed to provide impetus to keep the hard core of participants enthusiastic and positive
- Need for more community involvement
- Need for including non-team members

Students

Experiences:

- Students most actively involved reported positive feelings about career exploration activities
- Content motivating (4)

Preferences:

- Expressed interest in program expanding (6)

SOLOMON A. LEWENBERG MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The Lewenberg's plan included a realistic note:

> "The Lewenberg workshop members realize that this pilot program will raise many initial unforeseen questions and by its very nature will undergo a period of adjustment."

The action plan of the Lewenberg School had a strong emphasis on self-awareness and personal development. Two program goals were specified:

A. Develop in the students a concept of self-awareness and social interactions.

B. Develop an understanding of the relevance of an education as it pertains to the world of work.

The plan for the initial phase involved the incorporation of career exploration and self-awareness into the regular classroom. The plan also involved utilization of the considerable social service resources available in the community such as Little City Hall, YWCA, A.B.C.D., and the Harvard Street Health Clinic. In addition, the plan involved establishment of a Career Information Center.

Program Description

> These findings are based on one school visit and interviews with three teachers and twelve students.

During the previous school year, several subject area teachers had conducted career-related field trips, and video-taped television programs had been used in home economics courses. Although there had been concern over integration of boys and girls in industrial arts and home economics last year, industrial arts and home economics presently enroll 50% boys and girls.

The visit to the Lewenberg was brief and only 3 teachers were formally interviewed; however, considerable evidence of interest in career education was obvious. For example, the sixth grade and the eighth grade clusters involve all teachers in career education activities. In addition, the media specialist at the school has video-taped two Public Broadcasting System series on career education which are readily available to all teachers in the school.

The Career Information Center is an attractive room which is shared with one of the guidance counselors and is well-stocked with materials. The room is equipped with audio-headsets and is used with small groups of students by the counselors and the career exploration coordinator.

The career exploration coordinator, a math teacher, is working hard to establish community contacts and arrange field trips and guest speakers for teachers. He is a well respected member of the school staff who is a strong advocate for career education. In the words of one team member, "He's no shrinking violet." Two recent trips to the Boston Edison Company, arranged by the career exploration coordinator, were well received by both students and teachers.

In a group interview, students enthusiastically described some of their career education experiences such as interview role-plays and discussions. The students recognized a greater emphasis on careers in their classes this year.

Recommendations

1. Increase communication of team members with entire school staff and involve a larger number of people.

Lewenberg

SUMMARY OF FINDINGS

Materials

Exemples of materials being used:

- Developed own materials (1)*
- Scope visuals (1)

Problems associated with materials:

- Delay in receipt (1)

Training

Most valuable aspects:

- The group facilitator (1)
- Presentation on decision-making (1)
- Able to meet as a team (1)

Recommended improvements:

- More outside agencies, more materials appropriate for grade levels (1)

Interactions

Effect on intra-team interaction:

- Greatly (1)
- Not at all (1)

Effect on interaction with the community:

- Very little (1)
- Not at all (1)

Effect on intra-school communication:

- Not at all (2)

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*Number of respondents who provided answer indicated.

Problems in Implementation

- Supplies (1)
- Opportunity to review materials (1)

Factors Contributing to Change

None mentioned

Program Strengths

- Career education coordinator (1)
- "tremendous cooperation of teachers" (1)

Expressed Needs

- Opportunity to review materials (1)
- More guest speakers (1)

Students

Experiences:

- Students have enjoyed career education activities in the classes of team members, such as interview role-playing

Preferences:

- More guest speakers

CHARLES MACKEY MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The initial plan of the Mackey involved a strong emphasis on infusion and utilization of guidance resources. Academic area teachers were to concentrate on the Business-Distribution-Government cluster while industrial arts would concentrate in the Industry-Related cluster and home economics on the Food-Home-Health Services cluster, focussing on Child Care, Hospitality and Food Service careers.

Program Description

> These findings are based upon three visits which included interviews with six team members and one non-team member at the school.

Career education is not new to teachers at the Mackey. During 1975-1976, the Title VII bilingual program had provided materials and teacher training in career education at the Mackey.

Despite the interest and investment of energy on the part of team members at this school, the Career Exploration Program has run into some difficulty. A separate course in career education has been part of the schedule and this scheduling error was somewhat demoralizing to team members who had expected to utilize a total infusion model.

In addition, the guidance counselor has been transferred to a teaching position. Although he has maintained his involvement with the program and the career education materials are located in his room, his transfer to a teaching position is a severe loss for the program. He teaches several sections of career education but is unable to play a major role in coordination and student referral due to his teaching responsibilities.

The course in career education is being taught by several of the team members. Student reaction is mixed, depending on the teacher.

In one case, the teacher is teaching his regular subject matter because of negative student reaction. The career education course may be eliminated during the second half of the year.

The course in career education has an equal number of boys and girls enrolled in the same classes. However, the assignment of the students in industrial arts and home economics is on the basis of sex. Industrial arts courses enroll almost entirely boys while the home economics courses enrolled almost entirely girls. This kind of scheduling on the basis of sex prevents students from being exposed to a wide range of experiences and interests, and perpetuates students' conceptions of courses and careers. According to the principal, a committee on scheduling is investigating this issue and will issue a report shortly.

Individual teachers have been using career education materials, but the program lacks coordination. The program has not been well-publicized in the school. As a result, teachers who share common interests in career exploration have worked somewhat in isolation. For example, one non-team teacher had submitted an independent proposal in career education because she was not aware of the activities of team members.

The Career Information Center is located in the reading room and is presently used as a reference area where teachers can come and borrow materials.

In conclusion, team members are using career education materials in their classes but lack information on what other teachers are doing which could lead to a strengthening of the program. There is an apparent need for more coordination and organization among team and non-team members and for a clarification of the model to be implemented (i.e., the infusion method, a separate course, or a combination of the two) which is understood and supported by the team in its effort to realize the school's career education goals.

Recommendations

1. Develop plan for coordination so that all occupational clusters and principles are covered. Team meetings should focus on issues such as: clarification of model; and coordinated implementation plans.

2. Develop plan for utilization of Career Information Center by students and more teachers.

3. Develop plan for utilizing community resources for guest speakers and field trips. Thus far, team members report that the program has had no effect on community interaction.

4. Develop plan for publicizing the program within the school and involving other teachers.

5. In compliance with Chapter 622 of the Massachusetts Laws, integrate boys and girls in industrial arts and home economics courses.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "Careers in Focus" (2)*
- "Jobs in Your Future" (1)
- Basic drafting (1)
- Chronicle Guidance materials (1)

Problems associated with materials:

- Reading level (3)
- Need to preview materials (1)

Training

Most valuable aspects:

- Availability of materials (2)
- Getting together with all teachers (1)

Recommended improvements:

- Trainers trained in how to train teachers (1)
- Attention to student assessment (1)
- Ways to involve career education in classes (1)
- More direction (1)
- More structure (1)

Interactions

Effect on intra-team interaction:

- Greatly (4)
- Very little (3)
- Not at all (1)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Not at all (8)

Effect on intra-school communication:

- Somewhat (3)
- Not at all (5)

Problems in Implementation

- Training: teachers need more information on career education (1) and lack of information on how to do it (1)
- School constraints:
  - -alternative location for Career Information Center (1)
  - -lack of structure (1)
  - -scheduling (1)
  - -getting organized (1)

Factors Contributing to Change

None mentioned

Program Strengths

- Materials (3)
- Teachers (2) "enthusiasm of team members"
- Career exploration coordinator and reading specialist (1)

Expressed Needs

- Involvement of guidance counselor (1)
- Course on how to get organized (1)
- More training for teachers (1)
- Time (2); time should be set aside for groups of teachers (1)

Students

Experiences:

- Students recall career education activities in the classrooms of team members

Preferences:

- Would like more guest speakers and field trips

JOHN W. McCORMACK MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The original plan involved infusion of career education into all subject areas with a focus on one of the fifteen U.S. Office of Education clusters every two months--five clusters per year. In this way, during three years of middle school, students would explore fifteen clusters of occupations. Specific concentrations were delineated for each grade level. In addition, the plan involved the establishment of a Career Information Center in the library for student and teacher use.

Program Description

> These findings are based upon three visits to the school which included interviews with six team members and eighteen students

Considerable groundwork had been laid during the previous school year by several of the teachers. The Title VII Bilingual Career Education Program had conducted teacher workshops and two home economics teachers had not only revitalized their own courses to reflect attention to career education, but had also collaborated with the unified arts teachers and other teachers in developing career education activities. One of the main schoolwide events last year was the Ethnic Fair which many team members described as getting career education started in the school since it got all teachers working together.

The present career exploration coordinator is a well-respected member of the faculty who is interested in initiating change within the Unified Arts Department which he heads and the entire school. The team has the strong support of the principal and team members work well together.

The two month focus on the clusters is highly visible within the school. Most teachers in the school are not only aware of the program but also use materials related to the cluster which have been prepared by team members. The first cluster concentration, construction, has had a considerable impact on students and teachers alike. There were displays throughout the school related to construction. The Construction Career Fair included representatives of almost thirty different construction careers, including minority and female representatives, who spoke with students about career opportunities.

The Career Information Center is located in the library and although the librarian had not been involved with the training, she has gained a strong understanding of career education through attendance at team meetings. She works closely with small groups of students when they visit the library as part of their English classes. As of yet, guidance has not been integrated into the program and there is a need to coordinate the Career Information Center with the Guidance Department. The only problem encountered during implementation was the delay in the receipt of materials which has affected student use of, and referral to, the Career Information Center.

The students interviewed spoke very positively about career exploration activities at the McCormack. Specifically mentioned were: the Title VII bilingual program; activities in home economics classes; the Career Fair; and activities in eighth grade social studies and the sixth grade classrooms.

There are innovative uses of staff time and several interesting projects at the McCormack. The career exploration coordinator uses his assigned substitute to teach a class in career education to sixth graders. Also, in one seventh grade class observed, students were filming television commercials. The home economics classes include career exploration activities developed by the teachers.

The McCormack was the only school where teachers indicated that they needed more occupational information. Undoubtedly, this is due to the concentrated involvement in career education.

The program participants have been working together in developing an outstanding program in career education. Although a considerable change in interaction with the entire school staff is not reflected in the data, this is because a high level of collaboration had already been established.

Participants are most concerned about involving other teachers and would like assistance in working with other teachers to infuse career education principles.

Recommendations

1. Develop an approach for allowing students to explore occupations of interest to them which may be different than the cluster under study for the two months.
2. Continue to enlist involvement of entire school staff including guidance.
3. Provide teachers with additional occupational information on the clusters.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- Own materials (2)*
- McKnight materials (2)
- "King Oil" (1)

Problems associated with materials:

- Need for hardware (1)

Training

Most valuable aspects:

- Group of teachers working together (3)
- Increased awareness and emphasis on career education (2)

Recommended improvements:

- Involvement of more teachers (2)
- Follow-up here (1)
- Training in dissemination (1)

Interactions

Effect on intra-team interaction:

- Greatly (1)
- Somewhat (3)
- Very little (1)
- Not at all (3)

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*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Greatly (2)
- Somewhat (2)
- Very little (1)
- Not at all (3)

Effect on intra-school communication:

- Greatly (1)
- Somewhat (3)
- Not at all (3)

Problems in Implementation

- Time (3)--"It's more than one person can do."
- Lack of role models for students (2)--"Students have problems grappling with notion of working."
- Communication with other teachers (2)--"Show teachers how to use materials."

Factors Contributing to Change

- Entire program (2)
- Materials (1)
- Cooperation among teachers (1)

Program Strengths

- Involvement of teachers (5)
- Enthusiasm of some staff members (2)
- Willingness of teachers to get involved (2)

Expressed Needs

- Hardware (2)
- Person to work with teachers (2)
- Special workshops for other teachers (1)

Students

- Career Fair had considerable impact on students' occupational selections--when students were interviewed after the Construction Fair, well over 50% were interested in occupations in the field.
- Students would like opportunity to investigate careers of interest to them.

MICHELANGELO MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The initial plan for the Michelangelo School called for "broadening the school's perspective on occupational education." This was to occur by modifying industrial arts, home economics, and guidance to include career information, self-exploration and hands-on experience in the Industry-Related and Food-Home-Health-Related cluster areas in the Unified Plan. Likewise, the curriculum of the math and science members of the team was to expand to provide the same variety of career oriented experiences in the Business-Distribution-Government cluster. This school also planned to seek the involvement of parents since the Michelangelo has particularly strong working relationships with the communities that this school serves. This was anticipated as a particularly promising part of the plan.

The team included Italian and Chinese bilingual teachers who would specifically work to develop full Career Exploration Programs for these students. The plan also provided for the development of a Career Information Center adjacent to the guidance area. This center would be available as a resource center for staff and students as well as serve as an area for small group discussions.

Program Description

> The following findings are based on the responses of six team members.

There appear to have been no major school constraints hampering the progress of implementation at the Michelangelo and, with minor exceptions, the initial plan is being implemented as anticipated.

Before this school year, the Michelangelo had been involved in a number of programs which contributed to student career awareness. Some of these programs included:

- Field trips sponsored by the Home Economics and Guidance Departments
- Guest speaker program sponsored by the Guidance Department and School Volunteers of Boston
- Special programs in house design and construction.

Numerous new features which have evolved in this early phase of implementation are worthy of note. First, the team's bilingual guidance counselor for the Chinese students has translated worksheets from English to Chinese which can be used sequentially. Besides developing this program which has been implemented cooperatively by other bilingual teachers, she has also translated two reference packages for the Chinese students. One lists jobs in English and Chinese for which high school training or less is necessary. The other lists jobs (also in both languages) for which further training is necessary. These packets are given to each student for his or her own reference, and are to be taken home to discuss with the student's family. Having materials in both Chinese and English facilitates discussions among all family members. This has encouraged parental involvement and the program as a whole was described by the counselor as having been highly successful.

Another interesting feature of this program seems to have been the "career exploration rap sessions" conducted in the Career Information Center by the career exploration coordinator. Although these groups are just getting underway, they have already involved testing of interests and aptitudes, discussions of these tests, and discussions of student career interests and concerns.

The Career Information Center is primarily used by the career coordinator for these small groups, but he has also initiated a lending system for the materials of the center. To date, at least eight teachers have borrowed from this material-lending service.

The involvement of non-team members in this program has been facilitated by allowing all faculty to order materials. In this way, more than just the team members have used career exploration materials.

In summary, the Michelangelo Career Exploration Program is perceived by teachers as having few problems and individual teachers feel pleased with their progress. Presently, teachers feel the need for further organization toward "a cohesive whole", or schoolwide program.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "Careers in Focus"
- McGraw-Hill
- Teacher-made

Problems associated with materials:

- Not all materials arrived
- Little time to review--if more time had been allowed purchases would have been more selective
- More demonstrations of how to use the materials

Training

Most valuable aspects:

- Feedback: re what we are doing
- Materials available to take and order
- Group discussion

Recommended improvements:

- Need suggestions on how to interview, test, assess students
- Need for live models of what's going on (i.e., see someone explain and use materials at C.I.C., etc.)
- More training of how to

Interactions

Effect on intra-team interaction:

- Generally described as greatly or somewhat affected

Effect on interaction with the community:

- Generally, those interviewed mentioned some effect in interaction

Interactions (continued)

Effect on intra-school communication:

- Generally felt to be a positive increase in interaction

Problems in Implementation

- Time to implement career exploration
- Materials were not useful for this group of students

Factors Contributing to Change

- Materials
- Interest of the participants

Program Strengths

- Supportive team
- Positive students
- Materials
- Proximity to a community-available resource

Expressed Needs

- Training
- Technical assistance
- Need to include more staff and students

Students

Not interviewed

WILLIAM H. TAFT MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The initial action plan at the Taft School emphasized infusion of career education principles by all team members. Industrial arts teachers would be responsible for the Industry-Related cluster; home economics would be responsible for the Food-Home-Health Services cluster and the Business-Distribution-Government cluster would be the responsibility of the academic teachers. The plan showed a heavy emphasis on the generic principles of career education such as decision-making and self-awareness. The plan also stressed community and parental involvement. The plan called for press releases and monthly newsletters to parents describing the career education activities of the school.

The career exploration coordinator was to be responsible for setting up the Career Information Center and for arranging guest speakers and field trips. The plan for the center was elaborate and included staffing by the Guidance Department, career exploration coordinator, a para-professional aide and a student volunteer.

Program Description

> These findings are based on three visits to the schools which included interviews with four team members and eight students.

Program implementation in this school has been slow and there have been problems associated with staffing and the school schedule. Three of the nine team members who had been trained at the summer sessions were either transferred to another school or position, or ill when school started in September. The person designated as career exploration coordinator during the spring of 1975 was appointed Core Evaluation Team leader prior to the opening of school in September and was replaced by another member of the team.

The initial action plans of teachers had anticipated a school scheduling pattern of 16 weeks in industrial arts and home economics. However, the school schedule actually required rotation every 8 weeks. Consequently, teachers in these subjects have not used the materials as originally intended. As a result of the personnel and the scheduling changes, a large amount of materials is not being used.

The career exploration coordinator has remodeled a former storage closet adjacent to the office for the Career Information Center. This center is primarily used for storage of career information materials. Plans are underway for the development of a Career Information Center on the third floor of the building which will be for use by teachers and groups of students.

Some of the team members who replaced those individuals no longer in the school have begun implementation of career exploration concepts and materials in their classrooms. Teachers in the eighth grade cluster, as well as one of the guidance counselors, have been making sincere efforts to incorporate career exploration into their classes and activities.

Most of the teachers interviewed are dissatisfied with the materials they are using since they are at an inappropriate reading level or because they do not fit in with the present scheduling system. Teachers need assistance in adapting these materials to use in their classrooms.

The program has not been well-publicized in this school. As a result, non-team teachers do not know about the program, nor are they encouraged to incorporate career education principles into their courses.

The program lacks coordination. A few team meetings have been held but these have only been concerned with procedural matters. Teachers are working in isolation and are not aware of what other teachers are doing.

There has been very little community involvement; the parental newsletter and press releases have not been written. Some community exploration activities are planned and these may help the students gain a better understanding of career opportunities.

Students indicated that they had done career education activities, such as job applications, in reading and with the guidance counselor. The students could identify occupations they were interested in, but could not recall school activities related to their occupational interests. The students interviewed had spoken with family friends about occupations of interest to them but were not aware of school resources which might assist them in career planning.

Recommendations

1. Review and adapt available materials so that teachers can use these materials with their classes.
2. Institute some schoolwide activity such as a Career Fair which will raise the involvement and interest of staff and students in career education.
3. Develop a plan for integration of clusters and career education concepts into the school curriculum.
4. During team meetings, concentrate on substantive issues, such as who's doing what and successful experiences of teachers in career exploration.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "Careers in Focus"
- "Jobs in Your Future"

Problems associated with materials:

- Delay in receipt (1)*
- Inappropriate for grade level (1)

Training

Most valuable aspects:

- Team time (3)
- First follow-up (1)

Recommended improvements:

- Present materials appropriate for grade level (1)

Interactions

Effect on intra-team interaction:

- Very little (3)
- Not at all (1)

Effect on interaction with the community:

- Somewhat (3)
- Very little (1)

Effect on intra-school communication:

- Somewhat (1)
- Very little (2)
- Not at all

*Number of respondents who provided answer indicated.

Problems in Implementation

- Materials ordered are inappropriate for the students in terms of the reading level of the students (4)
- Time is a problem (3)
- Scheduling (2)
- Content areas responsible for occupational clusters have not yet been identified (1)

Factors Contributing to Change

None mentioned

Program Strengths

None mentioned

Expressed Needs

- Materials appropriate for students (3)
- Greater emphasis on reaching students and teachers (1)
- A career day (1)
- Career education week with each class and cluster having a project and speakers (1)

FRANK V. THOMPSON MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The action plan written by the Thompson School team called for infusion to "facilitate student introduction to occupations in relation to content areas, self-awareness experiences, and the development of a Career Information Center (C.I.C.)." The plan described strategies for dissemination including: career exploration posters designed by students throughout the school; career exploration bulletin boards; a Career Exploration Program position statement for the school handbook distributed to students, staff and parents; career contests such as "Name That Job"; and a Careers Day slated for the spring. The plan further described plans for the C.I.C.

Program Description

> The following data were gathered primarily from interviews with seven of the nine team members at the Thompson School, and six students selected at random from team members' classes.

The initiation of a Career Exploration Program at the Thompson this year represents the school's first major effort in career exploration, with the notable exception of the Industrial Arts Department's involvement as a pilot site for the "World of Construction" curriculum program. With the exception of minor changes and slight shifts in emphasis, this plan has not been significantly changed, and the team has worked toward the goals specified in the action plan without major school constraint.

There are numerous features of this program which represent strengths with potential application to other settings. The Thompson School is the only team with an art teacher as a member. This teacher has worked with the students in designing career posters, and through special projects has exposed the students to numerous career possibilities in the arts. This teacher has combined hands-on activities with discussion and visits from professionals in art-related fields.

A social studies teacher has worked intensively with one sixth grade group in self-awareness activities and career exploration activities. A notable product of this work were Student Career Books which were written and illustrated by the students. The books include sections on students' interests, hobbies and career aspirations, as well as a project in which students interviewed their family members about their jobs. This interview project will be used to develop a "parent guest speaker" series in the spring.

An important feature of this Career Exploration Program has been the development of the Career Information Center. The Guidance Department has played a significant role in organizing, supervising, and utilizing the center which is in an area adjacent to the guidance offices. The center was completely renovated by students under the supervision of the career coordinator. Already, the guidance counselors have had orientation meetings in the center with all of the Thompson students, and have developed ongoing career exploration groups that meet with the counselors in the center weekly. For the first six weeks, the center was staffed only by the guidance counselors; however, two parents have recently volunteered in the center and it is presently open for some part of every day. The guidance counselors and the team are still grappling with how to maximize the center's use for students and make the center more attractive and useful to staff.

Several other strengths have contributed to implementation. First, the team as a whole is positive and enthusiastic. Their meetings are characterized by a high degree of participation from many team members. Second, the career coordinator is interested, well-liked, and sincere in his efforts to facilitate implementation.

There are a few areas of concern mentioned by team members which will require attention. First, the career exploration coordinator needs greater administrative support to fulfill his responsibilities.

There was also concern that certain staff factions could impede the success of the Career Exploration Program. The problem of harnessing strong and, in some cases, diverse groups into a cohesive coordinated team is one that will require sensitivity and skill.

There are two other areas of concern at the Thompson School. One relates to the role of the Core Evaluation Team Chairperson (CET) and the development of programs with attention to the needs of the special needs population. Second is the need to develop a sense of overall direction. A number of teachers expressed uncertainty about the course they had chosen and how it fits into the overall school effort. Their questions reflect their uncertainty: "What are others at the school doing?" The Thompson School is attempting to grapple with this problem by developing a "Who's Doing What to Whom" chart.

Students at the Thompson School expressed considerable interest in participating in career exploration activities. They had enjoyed those activities they had done with team members, particularly going to the Career Information Center and developing the Student Career Books. Students would like to be able to engage in more field trips and have the opportunity to meet guest speakers, which is planned.

Recommendations

Following are a number of specific recommendations for strengthening the Thompson School program:

1. Plan agendas for team meetings jointly with team members. While there should be some flexibility in keeping to schedule, effort should be made to address issues as they arise and continue to move forward.

2. The following suggestions for team meetings were raised by team members in interviews:

> "Who is doing what?"
>
> "How much time should be allotted to career exploration?"
>
> "How do individual programs fit into the overall school plan--is there overlap and/or continuity?"

3. Devote time to listing those areas which team members would like to see addressed in future technical assistance and training efforts.

4. Principal can solicit specific ideas for future planning for career education from the team members and ask them specifically how he can help facilitate their work.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- "SRA Decision Making" (3)*
- "Careers in Focus" (2)
- "King Career Comics" (2)

Problems associated with materials:

- Delay in arrival (3)
- Emphasis too great on the mechanics of ordering and disseminating material; not enough on substantive issues (3)
- Limited number of vendors from which to choose (2)

Training

Most valuable aspects:

- Served to heighten awareness (3)
- Provided environment for communication and planning for team (2)

Recommended improvements:

- Need more time devoted to curriculum development (3)
- Need more emphasis and time spent in discussing the content on materials, in contrast to problems of ordering and dissemination (2)

Interactions

Effect on intra-team interaction:

- Greatly affected (2)
- Somewhat affected (3)

*Number of respondents who provided answer indicated.

Interactions (continued)

Effect on interaction with the community:

- Generally unaffected (except for career counselor and guidance counselor) (4)

Effect on interaction with the community:

- No effect with one mention of negative effect

Problems in Implementation

- Staff politics (3)
- Better sense of where we're going (3)
- Communication among team members (2)

Factors Contributing to Change

- Training (1)
- Interest of teachers (1)

Program Strengths

- Team personalities and enthusiasm (3)
- Subject matter highly motivating for students (2)

Expressed Needs

- Field trips and speakers (2)
- Training (2)

Students

Experiences:

- Viewed program favorably
- Enjoyed activities they'd done with team members

Preferences:

- Wanted more activities
- Would prefer field trips, guest speakers
- More class time for career exploration time in C.I.C.

JAMES P. TIMILTY MIDDLE SCHOOL

Summary of Initial Plan for Implementation

The plan for the Timilty School involved infusion of career education principles into the subject areas of team members. The plan showed a heavy emphasis on the Industry-Related and Food-Home-Health Services clusters as well as an emphasis on integrating basic skills with career education. (The Business-Distribution-Government cluster was not fully incorporated into the plan.)

The plan also involved setting up three Career Information Centers for use by students and teachers. The main Career Information Center would be located in the home economics suite and staffed by an aide. Satellite centers would be set up in the guidance area and in the library.

Program Description

The following findings are based on the responses of eight team members.

During the 1975-76 school year in the following career education activities:

- World of Construction
- Title VII Career Education Workshop
- Printed career information materials were available in the guidance area.

There have been several changes in the original staffing pattern. The career exploration coordinator was replaced by a staff member who had not attended the summer training and the team was expanded to include the typing teacher.

Two Career Information Centers have been established to date. The first, in the guidance area, is being used frequently by one of the guidance counselors who refers small groups of students to review the occupational literature available there. This counselor has also made arrangements for some students to participate in the Boston Youth Motivation Group. The second Career Information Center is located in the home economics suite. This center is staffed by an aide who has been cataloguing the materials. The aide intends to work with small groups of students in the center. However, the center presently does not have a large supply of student materials. The student materials are kept in the room of the teacher who ordered them.

The third Career Information Center has not yet been established in the library.

Individual team members have been infusing career education materials in their courses. In industrial arts and home economics, the teachers have initiated special projects and are utilizing new books related to career education. The typing course has included career education exercises, such as filling out job applications.

The students interviewed were aware of the focus on career education in the classes of team members this year. Students recalled interesting activities in home economics, typing, industrial arts, and French. Students had enjoyed guest speakers in home economics and would like to participate in more field trips.

The program at the Timilty faces several problems. First, the program lacks coordination and communication among team members. There are several teachers who are interested in developing a strong career education program, but they are working in isolation and do not interact with their peers. Since implementation of any new program requires communication and coordination, these teachers have found it very difficult getting the Career Exploration Program off to a good and organized start.

Second, the team members and the career exploration coordinator have not had enough time to work together to develop a coordinated plan for implementation. Although team meetings have been held, the meetings have been overly concerned with administrative procedures and not with the concerns of teachers, such as "Who is doing what?" and "How does all of this fit together?" In addition, the present career exploration coordinator is overburdened with various other responsibilities which have prevented him from devoting the necessary time to the program. The career exploration team needs time and administrative support.

Third, although there are several non-team members at the Timilty who are enthusiastic and knowledgeable about career education, they have not yet been involved in the program. They should be involved and all teachers should begin implementation of career exploration in the next phase.

Space is another problem at the Timilty. The space being used for the Career Information Centers cannot accommodate more than six students and there is no additional unused space in the school.

Recommendations

1. The principal should provide time to the team members to meet and develop a coordinated plan for implementation.

Some suggested agenda items for these planning meetings include: who is doing what; what concepts are or are not being covered; how can we involve other teachers?

2. The principal should provide more time to the career exploration coordinator to organize and coordinate the program efforts.

3. One Career Information Center should be established which has both teacher and student materials. Coordinate the use of the center with all teachers, counselors, and the aide. One possible solution to the "space problem" is the utilization of a portion of the library.

4. The team should develop a plan for incorporating the full range of occupations in the Business-Distribution-Government cluster into the program.

5. As a way of involving non-team members in career exploration activities, the principal should provide time to several teachers to demonstrate successful career education activities to the entire faculty.

6. The team should hold a "Career Day" or another school-wide career-related activity as a step toward developing increased collaboration among teachers.

SUMMARY OF FINDINGS

Materials

Examples of materials being used:

- Noble & Noble (2)*
- "Careers in Focus" (1)
- Guidance materials (1)

Problems associated with materials:

None mentioned

Training

Most valuable aspects:

- Materials (2)
- Enthusiasm of teachers (1)

Recommended improvements:

- More opportunity to review materials (3)
- Demonstration of model program (2)
- Demonstration of model Career Information Center (2)
- Would prefer on-site training (1)
- Trainer should demand more from teachers (1)

Interactions

Effect on intra-team interaction:

- Greatly (3)
- Somewhat (4)
- Not at all (1)

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*Number of respondents who provided answer indicated.

Interactions (continued)

Effects on interactions with the community:

- Somewhat (1)
- Very little (2)
- Not at all (5)

Effects on intra-school communication:

- Somewhat (4)
- Very little (1)
- Not at all (4)

Problems in Implementation

- Need for more time (4)
- Don't know what to do next (1)

Factors Contributing to Change

- Materials (4)
- Training (4)

Program Strengths

- Staff interest (5)
- Materials (1)

Expressed Needs

- Involvement of a wider group of teachers (5)
- More time (4)
- Materials and resource information (4)

Students

- Generally, the students in the classes of team members and some non-team members had participated in career education activities. Students particularly enjoyed the small group sessions with the guidance counselor.

APPENDIX B: DESCRIPTION OF EVALUATION PROJECT ACTIVITIES

August

- Observation of training
- Development of evaluation approach
- Development of instrument for review of school action plan

September

- Approval of evaluation design
- Review of all school action plans
- Development of interview instruments
- Attendance at career exploration coordinator's meetings
- Initial contacts with the school

October

- First visit in nine pilot schools
- Field test of interview instruments
- Final revision of interview schedule
- Attendance at career exploration coordinator's meeting
- Attendance at Career Exploration Advisory Council meetings
- Questionnaire administered to all partial-implementation schools

November

- Second visit to nine pilot schools
- Third visit to nine pilot schools
- Debriefing of initial findings with the Boston Public Schools' Bureau for Equal Educational Opportunity and MCOE
- Follow-up telephone interviews with selected representatives from partial-implementation schools
- Visits with particular partial-implementation schools
- Attendance at the Career Education Advisory Council meetings
- Attendance at the career exploration coordinator's meeting

December

- Analysis and interpretation of data
- General debriefing and synthesis of findings with career exploration coordinators
- Review with career coordinator school for final report profiles
- Attendance at Career Education Advisory Council meetings
- Attendance at career exploration coordinator's meeting
- Development of final evaluation report

January

- Review of draft final report by Project Monitor and Special Assistant
- Publication of Final Report

"The Way It's Working: An Evaluation of the Boston Career Exploration Project" is published in two volumes:

- Final Report
- Executive Summary

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